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# WISCONSIN CANCER INCIDENCE AND MORTALITY

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1996

October, 1998

Wisconsin Department of Health and Family Services  
Division of Health Care Financing  
Bureau of Health Information  
P.O. Box 309, Madison, WI 53701-0309

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## Introduction

Cancer was responsible for 10,441 Wisconsin resident deaths and accounted for over 20% of all deaths in 1996. As in previous years, cancer was the most common cause of death among adults ages 45-74 and the second leading cause of death overall. Over 24,700 newly diagnosed cancers were reported in 1996.

This annual report presents summary information about Wisconsin cancer incidence (new cancer cases) and mortality (deaths due to cancer) in 1996. The Wisconsin Cancer Reporting System (WCRS), part of the Bureau of Health Information, Department of Health and Family Services, collects reports of all newly diagnosed cancer cases from over 300 Wisconsin hospitals, clinics and physician offices. In addition to those sources, 16 out-of-state cancer registries that have a data exchange agreement with WCRS provide reports of Wisconsin residents diagnosed with cancer in those states. This report would not be possible without the conscientious reporting of all sources mentioned.

Since 1976, WCRS has collected cancer incidence data on Wisconsin residents as mandated by Wisconsin State Statute 255.04. All invasive and noninvasive malignant tumors, except basal and squamous carcinomas of the skin, are reportable to WCRS. Starting in 1994, WCRS entered into a cooperative agreement with the Centers for Disease Control and Prevention (CDC) and became part of the National Program of Cancer Registries (NPCR). This program is authorized by the Cancer Registries Amendment Act (Public Law 102-515).

This annual report has certain revisions from previous years. The most apparent change is the new report title, *Wisconsin Cancer Incidence and Mortality* (formerly *Cancer in Wisconsin*). Various revisions in tabular data presentations are noted with tables in the report. A section, 'Guide for Reading this Report,' has been added at the beginning of the report to inform readers of data sources and definitions. The reader is encouraged to refer to the Technical Notes, for a full description of variables and reporting standards.

This report should serve as a resource for those working in cancer prevention and control. Population registry data can be used in prevention, early detection, patient care, public and professional education, and clinical research. WCRS provides information on the Internet World Wide Web (Web) about WCRS operations, annual reports, and special reports at our Web site address:  
<http://www.dhfs.state.wi.us/wcrs/index.htm>.

This report was produced by the Department of Health and Family Services. Cancer Reporting System staff collected, edited and compiled the data used in this report. Mary Foote and Laura Stephenson-Vine prepared the report text. Laura Stephenson-Vine produced the tables and graphs.

Requests for additional cancer incidence data may be addressed to:

Cancer Reporting System, Division of Health Care Financing, Department of Health and Family Services  
P.O. Box 309  
Madison, WI 53702-0309  
(608) 266-8926



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## Guide for Reading this Report

**Content of the Report.** This annual report summarizes incidence and mortality data for all cancers diagnosed in Wisconsin residents. Incidence data represent cancer cases newly diagnosed for Wisconsin residents between January 1, 1996 and December 31, 1996. Mortality data are based on cancer deaths (underlying cause of death) reported for Wisconsin residents during the same period. This report contains descriptive analyses based on the 1996 cancer cases reported to WCRS by May 30, 1998. While the majority (an estimated 95 percent) of cases are presented in this report, some cases will be received after publication and therefore numbers may change slightly in future publications.

Incidence and mortality data are analyzed by demographic characteristics of sex, age and race. Race is presented in three categories: White, African American and Other (the numbers for American Indian, Asian/Pacific Islander and Hispanic ethnicity are too small to report separately).

Geographic variables in the report are based on the county and zip code data collected by WCRS. These variables are based on the patient's residence at time of diagnosis for incidence data, and the residence at time of death for mortality data.

All cancers in this report are classified and listed in order of their site group classification found in the *International Classification of Diseases for Oncology (ICD-O), Second Edition*.

**Age-Adjusted Incidence and Mortality Data.** Following National Cancer Institute (NCI) and CDC guidelines, WCRS has age-adjusted the incidence and mortality rates per 100,000 population for Wisconsin residents to the U.S. 1970 standard population. Rates are age-adjusted in order to account for differences in age distributions over time and across different geographic regions. More detail on the age-adjustment method is provided in the Technical Notes (page 62).

**Stage at Diagnosis.** Stage at diagnosis refers to how far a cancer had spread from the site of origin when it was diagnosed. This is an indicator of the success of cancer prevention and screening programs because earlier detection is generally related to increased survival time and lower mortality. WCRS cancer data are coded according to summary guidelines of NCI's Surveillance Epidemiology and End Results (SEER) program. The following staging definitions are used in this report:

<i>In Situ</i>	A small cancer confined to the cells in which the cancer began, that does not invade or penetrate the surrounding tissue.
<i>Localized</i>	An invasive tumor (penetrated the surrounding tissue) that is confined to the organ of origin.
<i>Regional</i>	A tumor that has spread beyond the organ of origin to adjacent organs or tissue by direct extension (penetrated directly into surrounding organs or tissues), or through the regional lymph nodes (through the lymphatic system), or both, but appears to have spread no further.

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*Distant*            A tumor that has spread to parts of the body remote from the primary organ, or a systemic malignancy (such as cancers in the blood, bone marrow, or lymph system).

*Unknown*        Insufficient information available to determine the stage of disease at diagnosis.

**Data Sources.** This report includes all cancer cases reported by Wisconsin hospitals, clinics, physician offices, and cooperating out-of-state cancer registries. WCRS has a passive system of data collection, meaning that facilities are required, by Wisconsin statute, to abstract and report the data to WCRS, as opposed to WCRS collecting the data firsthand. The quality of the data is subject to the experience and qualifications of the reporters and the resources of the facility. WCRS staff edit, process and analyze the data received. Quality assurance measures are in place to identify incomplete and/or inaccurate incoming data.

The 1996 mortality data are obtained from death certificates for Wisconsin residents, collected and coded by the Vital Records and Statistics Section, Bureau of Health Information. Cancer mortality rate calculations are based on the underlying cause of death recorded on the death certificate. Although the Vital Records Section also codes the contributing cause(s) of death and other significant factors, these are not used in calculating the mortality rates. The accuracy of reporting a specific cause of death varies, subject to the best information available to the medical examiner, coroner, or physician certifying the death.

The Wisconsin population data are prepared at the Bureau of Health Information (BHI). To produce these estimates, BHI uses beginning-year state and county population totals developed by the Wisconsin Department of Administration, Demographic Services, together with the mid-year county and state estimates provided by the Population Estimates Branch of the Bureau of the Census.

**Data Limitations.** This report represents data collected from a variety of facilities. The capability of reporting sources to provide timely and complete data varies, and WCRS is grateful for the overall good quality of Wisconsin cancer reports. However, certain variations occur with facility compliance and reporting practices over which WCRS has limited control.

The one-year time frame of this report limits certain data analysis because small numbers are reported for less common cancer sites and for county-level data. The small population of many counties in Wisconsin and relative rarity of some types of cancer make the computation of rates or relative proportions unreliable. Numbers (frequencies) are given as an estimate of general magnitude for each county and should not be compared across counties. Caution is also warranted when comparing small numbers between different cancer sites and racial groups.

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## Key Findings

### *Demographic characteristics of cancer incidence*

- There were 24,714 newly diagnosed cancer cases in 1996 among Wisconsin residents, compared with 24,607 in 1995.
- The overall age-adjusted cancer incidence rate for Wisconsin residents in 1996 was 405 per 100,000 population, unchanged from the 1995 rate. For males, the 1996 rate was 448 per 100,000 population; for females, it was 379 per 100,000 population.
- In 1996, the most frequently diagnosed cancers among Wisconsin women were (in descending order) breast (31%), lung (11%), and colon (10%). Among Wisconsin men, the most frequently diagnosed cancers were prostate (29%), lung (15%) and colon (9%).
- The rate of newly diagnosed breast cancer cases among women decreased slightly from 1995; the 1996 rate was 120 per 100,000 compared with the 1995 rate of 122 per 100,000. However, the rate of newly diagnosed lung cancer cases among women increased to 42 per 100,000, compared with 38 per 100,000 in 1995.
- The rate of newly diagnosed prostate cancer cases increased slightly in 1996, reaching 130 per 100,000, compared with 128 per 100,000 in 1995. The rate for newly diagnosed lung cancer cases among men remained relatively constant at 69 per 100,000, comparable to the 1995 rate of 68 per 100,000.
- Cancer incidence in general rises with increasing age. In 1996, people age 65 or older accounted for 59 percent of newly diagnosed cancer cases and 73 percent of cancer deaths. The reported incidence of breast cancer was 200 cases among females ages 30-39 and 901 cases among females ages 70-79. The incidence of prostate cancer was 404 cases among males ages 50-59 and 1,307 cases among males ages 70-79.

### *Tumor characteristics*

- In 1996, 50 percent of cancers were diagnosed early, at *in situ* (non-invasive) or localized stage of disease. This was slightly higher than in 1995 (48%).
- Certain cancers are more likely to be detected at an early stage (*in situ* or local) than others. In 1996, 87 percent of cervical cancers, 79 percent of bladder cancers, 74 percent of prostate cancers and 68 percent of breast cancers were detected early. By contrast, only 24 percent of lung cancers, 21 percent of lymphomas, and 15 percent of pancreatic cancers were detected at an early stage.

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## ***Treatment***

- In 1996, 79 percent of all newly diagnosed cancer cases received cancer-directed treatment (treatments that remove or destroy cancer tissue for prolongation of life). Fifty-seven percent of all cancers were treated by surgery, with 40 percent treated by surgery only and the remaining 17 percent treated by surgery in combination with other treatments.
- Cancer treatments are clearly related to the stage at which cancer is diagnosed. Surgery is the most frequent treatment for cancers diagnosed at an early (*in situ* or local) stage. While surgery is also the most frequent treatment for later-stage cancers, non-surgical treatments such as radiotherapy and chemotherapy are more common in these cancers. For example, 97 percent of all cervical cancers diagnosed at an early stage in 1996 were treated with surgery, compared with 38 percent of more advanced cervical cancers. The most frequent treatment for advanced cervical cancer was radiotherapy (86%).

## ***Cancer mortality***

- There were 10,441 cancer deaths in Wisconsin in 1996, compared with 10,521 in 1995.
- Lung cancer continues to be the leading cause of cancer mortality for both women and men in Wisconsin (as well as nationally) and was responsible for 2,590 cancer deaths of Wisconsin residents in 1996. Twenty-eight percent of male cancer deaths and 21 percent of female cancer deaths were due to lung cancer.
- The highest rates of cancer death among Wisconsin women were lung (30 per 100,000), breast (22 per 100,000), and colon (11 per 100,000). Among Wisconsin men, the highest rates of cancer death were lung (56 per 100,000), prostate (25 per 100,000) and colon (16 per 100,000).
- The overall age-adjusted cancer mortality rate for Wisconsin residents in 1996 was 159 per 100,000 population. For males, it was 196 per 100,000 population; for females, it was 132 per 100,000 population. These were similar to the 1995 rates (161 overall, 200 for males and 133 for females, each per 100,000).
- The cancer mortality rate was higher in the Southeastern region of the state (173 per 100,000) than in the state as a whole (159 per 100,000). Among Wisconsin's three most populous counties, the cancer mortality rate was higher in Milwaukee County (188 per 100,000) than in Dane County (150 per 100,000) and Waukesha County (156 per 100,000).
- For 1996 cancer deaths, 46 months was the average months-to-death from the time of diagnosis for cancers that were diagnosed with *in situ* or localized stage of disease. This compares with 31 months for cancers diagnosed at a regional stage of disease, and 15 months for cancers diagnosed at a distant stage of disease.

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**Table 1. Number and Percent of Cancer Cases by Individual Primary Site and Sex**

PRIMARY SITE	MALE		FEMALE		TOTAL	
	Number	%	Number	%	Number	%
Lip	47	0.4	15	0.1	62	0.3
Tongue	79	0.6	37	0.3	116	0.5
Major Salivary Glands	36	0.3	40	0.3	76	0.3
Gum	15	0.1	11	0.1	26	0.1
Floor of Mouth	38	0.3	17	0.1	55	0.2
Other & Unspecified Parts of Mouth	53	0.4	34	0.3	87	0.4
Oropharynx	82	0.7	29	0.2	111	0.4
Nasopharynx	14	0.1	11	0.1	25	0.1
Hypopharynx	52	0.4	14	0.1	66	0.3
Other Sites in Lip, Oral Cavity & Pharynx	15	0.1	3	0.0	18	0.1
Esophagus	215	1.8	61	0.5	276	1.1
Stomach	243	2.0	124	1.0	367	1.5
Small Intestine	51	0.4	51	0.4	102	0.4
Colon	1,136	9.3	1,226	9.8	2,362	9.6
Rectum, Rectosigmoid Junction & Anus	482	4.0	411	3.3	893	3.6
Liver & Intrahepatic Bile Duct	110	0.9	64	0.5	174	0.7
Gallbladder & Extrahepatic Bile Duct	70	0.6	86	0.7	156	0.6
Pancreas	246	2.0	221	1.8	467	1.9
Retroperitoneum & Peritoneum	22	0.2	37	0.3	59	0.2
Other Within Digestive Organs & Peritoneum	2	0.0	8	0.1	10	0.0
Nasal Cavities & Sinuses, Internal Ear	19	0.2	14	0.1	33	0.1
Larynx	216	1.8	48	0.4	264	1.1
Trachea, Bronchus & Lung	1,853	15.2	1,347	10.7	3,200	12.9
Pleura	42	0.3	18	0.1	60	0.2
Thymus, Heart & Mediastinum	14	0.1	12	0.1	26	0.1
Other Respiratory & Intrathoracic Sites	0	0.0	0	0.0	0	0.0
Hematopoietic & Reticuloendothelial Systems, Except Leukemia	160	1.3	134	1.1	294	1.2
Bone, Joints & Articular Cartilage	29	0.2	51	0.4	80	0.3
Connective, Subcutaneous & Other Soft Tissue	84	0.7	75	0.6	159	0.6
Melanoma of Skin	372	3.1	331	2.6	703	2.8
Breast	30	0.2	3,857	30.8	3,887	15.7
Uterus, NOS	-	-	33	0.3	33	0.1
Cervix Uteri	-	-	820	6.5	820	3.3
Placenta	-	-	0	0.0	0	0.0
Corpus Uteri	-	-	751	6.0	751	3.0
Ovary, Fallopian Tube & Broad Ligament	-	-	483	3.9	483	2.0
Other & Unspecified Female Genital Organs	-	-	173	1.4	173	0.7
Prostate	3,489	28.7	-	-	3,489	14.1
Testis	178	1.5	-	-	178	0.7
Penis & Other Male Genital Organs	37	0.3	-	-	37	0.1
Urinary Bladder	833	6.8	308	2.5	1,141	4.6
Kidney & Other Urinary Organs	380	3.1	256	2.0	636	2.6
Eye & Lacrimal Gland	31	0.3	28	0.2	59	0.2
Brain	189	1.6	158	1.3	347	1.4
Other & Unspecified Parts of Nervous System	8	0.1	12	0.1	20	0.1
Thyroid Gland	61	0.5	217	1.7	278	1.1
Other Endocrine Glands	20	0.2	15	0.1	35	0.1
Lymph Nodes	331	2.7	279	2.2	610	2.5
Hodgkin's Disease	102	0.8	72	0.6	174	0.7
Lymphoid Leukemia	172	1.4	125	1.0	297	1.2
Myeloid Leukemia	148	1.2	123	1.0	271	1.1
Other Leukemia	34	0.3	30	0.2	64	0.3
Other & Ill-defined Sites	86	0.6	46	0.4	132	0.5
Unknown Primary Site	246	2.0	226	1.8	472	1.9
All Reportable Sites	12,172	100.0	12,542	100.0	24,714	100.0

Note: The primary site of a tumor is the organ of origin. Primary site affects prognosis by its accessibility for treatment, proximity to other organs, and the physiological role of the affected organ.

- The four most common cancers (lung, colon, breast and prostate) comprised over half of all newly reported cases.

**Table 2. Number and Age-Adjusted Rate of Cancer Cases by Site Group and Sex**

PRIMARY SITE	MALE		FEMALE		TOTAL	
	Number	Rate	Number	Rate	Number	Rate
Mouth & Pharynx	431	16.2	211	6.5	642	11.0
Stomach	243	8.6	124	3.0	367	5.5
Colon	1,136	41.0	1,226	31.2	2,362	35.7
Rectum & Rectosigmoid Junction	482	17.8	411	11.5	893	14.4
Pancreas	246	9.1	221	6.0	467	7.4
Other Gastrointestinal Tract	470	17.3	307	8.5	777	12.6
Trachea, Bronchus & Lung	1,853	68.7	1,347	41.7	3,200	53.4
Other Respiratory	291	11.0	92	2.9	383	6.7
Bone & Connective Tissue	113	4.3	126	4.2	239	4.2
Melanoma of Skin	372	13.2	331	10.3	703	11.6
Breast	30	1.1	3,857	119.7	3,887	64.2
Cervix Uteri	-	-	820	27.9	820	14.0
Corpus Uteri	-	-	751	24.4	751	13.0
Other Female Genital	-	-	689	21.2	689	11.3
Prostate	3,489	129.9	-	-	3,489	58.0
Other Male Genital	215	7.2	-	-	215	3.5
Urinary Bladder	833	29.9	308	8.2	1,141	17.7
Kidney & Other Urinary	380	14.1	256	7.6	636	10.6
Eye, Brain & Other Nervous System	228	8.5	198	6.5	426	7.4
Lymph Nodes	433	16.0	351	10.6	784	13.1
Leukemia	354	13.1	278	8.4	632	10.5
All Others	573	20.7	638	18.4	1,211	19.2
All Reportable Sites	12,172	447.7	12,542	378.7	24,714	404.8

Notes: Rates are per 100,000 residents age-adjusted to the 1970 United States population. Site groups are listed in ICD-O2 numerical code order. See Technical Notes at the end of this report for the individual sites included in each site group.

- The overall cancer incidence rate was 18 percent higher for males than for females. Among males, the most frequently reported cancers were prostate, lung and colon; among females, they were breast, lung and colon.

**Table 3. Number and Percent of Cancer Cases by Site Group and Race: Males**

PRIMARY SITE	White		African American		Other		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mouth & Pharynx	396	3.4	19	4.5	10	8.5	6	5.8	431	3.5
Stomach	216	1.9	18	4.2	8	6.8	1	1.0	243	2.0
Colon	1,091	9.5	29	6.8	9	7.7	7	6.8	1,136	9.3
Rectum & Rectosigmoid Junction	451	3.9	16	3.8	6	5.1	9	8.7	482	4.0
Pancreas	236	2.0	5	1.2	4	3.4	1	1.0	246	2.0
Other Gastrointestinal Tract	436	3.8	23	5.4	7	6.0	4	3.9	470	3.9
Trachea, Bronchus & Lung	1,748	15.2	84	19.8	16	13.7	5	4.6	1,853	15.2
Other Respiratory	278	2.4	9	2.1	1	0.9	3	2.9	291	2.4
Bone & Connective Tissue	108	0.9	4	0.9	1	0.9	0	0.0	113	0.9
Melanoma of Skin	364	3.2	0	0.0	1	0.9	7	6.8	372	3.1
Breast	29	0.3	1	0.2	0	0.0	0	0.0	30	0.2
Prostate	3,304	28.7	129	30.4	21	17.9	35	34.0	3,489	28.7
Other Male Genital	204	1.8	7	1.7	2	1.7	2	1.9	215	1.8
Urinary Bladder	810	7.0	12	2.8	3	2.6	8	7.8	833	6.8
Kidney & Other Urinary	355	3.1	15	3.5	7	6.0	3	2.9	380	3.1
Eye, Brain & Other Nervous System	216	1.9	7	1.7	5	4.3	0	0.0	228	1.9
Lymph Nodes	414	3.6	11	2.6	5	4.3	3	2.9	433	3.6
Leukemia	333	2.9	12	2.8	3	2.6	6	5.8	354	2.9
All Others	539	4.7	23	5.4	8	6.8	3	2.9	573	4.7
All Reportable Sites	11,528	100.0	424	100.0	117	100.0	103	100	12,172	100.0

Notes: Percents are calculated from the total number of cases for the particular sex and race. Small numbers of cases for minority race/ethnicity groups preclude reliable group comparisons.

- The most commonly diagnosed cancers among Wisconsin males, all races, were prostate (29%), lung (15%), colo-rectal (13%), urinary bladder (7%) and lymphoma (4%).

**Table 4. Number and Percent of Cancer Cases by Site Group and Race: Females**

PRIMARY SITE	White		African American		Other		Unknown		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mouth & Pharynx	202	1.7	7	1.8	1	0.7	1	0.9	211	1.7
Stomach	116	1.0	4	1.0	3	2.1	1	0.9	124	1.0
Colon	1,191	10.0	22	5.7	8	5.7	5	4.3	1,226	9.8
Rectum & Rectosigmoid Junction	397	3.3	14	3.6	0	0.0	0	0.0	411	3.3
Pancreas	210	1.8	8	2.1	1	0.7	2	1.7	221	1.8
Other Gastrointestinal Tract	280	2.4	15	3.9	11	7.9	1	0.9	307	2.4
Trachea, Bronchus & Lung	1,268	10.7	59	15.4	16	11.4	4	3.5	1,347	10.7
Other Respiratory	85	0.7	4	1.0	3	2.1	0	0.0	92	0.7
Bone & Connective Tissue	120	1.0	4	1.0	1	0.7	1	0.9	126	1.0
Melanoma of Skin	307	2.6	0	0.0	5	3.6	19	16.5	331	2.6
Breast	3,694	31.0	106	27.6	22	15.7	35	30.4	3,857	30.8
Cervix Uteri	715	6.0	55	14.3	26	18.6	24	20.9	820	6.5
Corpus Uteri	723	6.1	14	3.6	9	6.4	5	4.3	751	6.0
Other Female Genital	648	5.4	25	6.5	11	7.9	5	4.3	689	5.5
Urinary Bladder	295	2.5	7	1.8	2	1.4	4	3.5	308	2.5
Kidney & Other Urinary	247	2.1	6	1.6	3	2.1	0	0.0	256	2.0
Eye, Brain & Other Nervous System	192	1.6	3	0.8	1	0.7	2	1.7	198	1.6
Lymph Nodes	340	2.9	9	2.3	2	1.4	0	0.0	351	2.8
Leukemia	262	2.2	10	2.6	4	2.9	2	1.7	278	2.2
All Others	611	5.1	12	3.1	11	7.9	4	3.5	638	5.1
All Reportable Sites	11,903	100.0	384	100.0	140	100.0	115	100.0	12,542	100.0

Notes: Percents are calculated from the total number of cases for the particular sex and race. Small numbers of cases reported for minority race/ethnicity groups preclude reliable group comparisons.

- The most commonly diagnosed cancers among Wisconsin females, all races, were breast (31%), lung (11%), colon (10%), cervix (6%) and uterus (6%).

**Table 5. Number and Age-Adjusted Rate of Cancer Cases by Major Site Group and Region**

PRIMARY SITE		REGION					
		SOUTH	SOUTHEAST	NORTHEAST	WEST	NORTH	TOTAL
Colorectal	NUMBER	505	1,220	744	449	337	3,255
	RATE	44.8	51.9	51.5	49.1	51.5	50.1
Other Gastrointestinal Tract	NUMBER	370	875	467	297	244	2,253
	RATE	34.6	39.4	33.3	34.2	38.6	36.5
Respiratory	NUMBER	585	1,429	764	445	360	3,583
	RATE	56.9	66.6	57.0	53.0	58.9	60.1
Breast	NUMBER	624	1,563	846	482	372	3,887
	RATE	60.8	69.8	63.4	56.8	61.3	64.2
Female Genital	NUMBER	415	775	507	321	242	2,260
	RATE	39.4	35.1	38.9	40.8	44.8	38.3
Male Genital	NUMBER	589	1,458	752	502	403	3,704
	RATE	57.4	67.3	56.5	58.8	62.4	61.5
Urinary Tract	NUMBER	257	688	398	224	210	1,777
	RATE	23.7	30.4	28.3	25.1	32.9	28.3
Leukemia & Lymph Nodes	NUMBER	257	521	297	185	156	1,416
	RATE	25.4	23.6	22.1	21.7	25.9	23.6
All Others	NUMBER	430	980	532	394	243	2,579
	RATE	40.7	43.9	39.9	45.3	40.2	42.3
All Reportable Sites	NUMBER	4,032	9,509	5,307	3,299	2,567	24,714
	RATE	383.8	428.0	391.0	384.9	416.5	404.8

Notes: Rates are per 100,000 residents, age-adjusted to the 1970 United States population. The regions used are the Department of Health and Family Services Regions. See Map on page 71 for regional boundaries. See Technical Notes at the end of this report for the individual sites included in each major site group. In this table, the major site group "Other Gastrointestinal Tract" includes the site group "Mouth and Pharynx."

- The Southeastern and Northern regions had higher total incidence rates for reported cancers (428 and 416 per 100,000, respectively) than did Wisconsin as a whole (405 per 100,000).

**Table 6. Number and Age-Adjusted Rate of Cancer Cases by Major Site Group, Three Most Populous Wisconsin Counties**

PRIMARY SITE	COUNTY					
	DANE		MILWAUKEE		WAUKESHA	
	Number	Rate	Number	Rate	Number	Rate
Colorectal	196	50.9	629	53.7	203	53.5
Other Gastrointestinal Tract	143	37.6	461	43.3	141	37.7
Respiratory	215	58.9	782	75.7	209	59.0
Breast	267	70.2	763	71.1	301	78.6
Female Genital	161	36.7	426	39.8	124	32.5
Male Genital	216	62.2	709	66.5	248	69.7
Urinary Tract	114	29.7	343	31.5	110	29.5
Leukemia & Lymph Nodes	104	27.8	262	24.0	94	26.2
All Others	217	55.4	503	46.1	186	48.7
All Reportable Sites	1,633	429.4	4,878	451.7	1,616	435.4

Notes: Rates are per 100,000 residents, age-adjusted to the 1970 United States population. See Technical Notes at the end of this report for the individual sites included in each major site group. In this table the major site group "Other Gastrointestinal Tract" includes the site group "Mouth and Pharynx." The counties selected for this table are the three most populous counties in the state, based on 1996 population estimates. This makes it possible to provide age-adjusted rates.

- In 1996, the three most populous counties in Wisconsin had higher cancer incidence rates than the statewide rate of 405 per 100,000.

**Table 7. Number of Cancer Cases by Site Group and County of Residence**

Primary Site	Total	Adams	Ashland	Barron	Bayfield	Brown	Buffalo	Burnett	Calumet	Chippewa	Clark
Mouth and Pharynx	642	4	3	7	1	19	2	0	3	2	3
Stomach	367	0	0	0	1	17	1	1	2	4	1
Colon	2,362	3	8	23	9	111	3	7	12	31	14
Rectum & Rectosigmoid Junction	893	1	4	2	3	36	6	2	5	12	8
Pancreas	467	1	1	7	4	17	1	1	2	3	2
Other Gastrointestinal Tract	777	2	5	2	0	20	1	3	5	9	4
Trachea, Bronchus & Lung	3,200	11	17	37	10	102	8	6	8	37	14
Other Respiratory	383	3	2	2	0	8	0	2	2	3	2
Bone & Connective Tissue	239	0	1	3	0	6	0	1	0	1	1
Melanoma of Skin	703	2	1	4	1	39	0	2	1	11	5
Breast	3,887	4	19	26	8	149	14	7	14	42	21
Cervix Uteri	820	3	1	3	1	22	8	1	6	11	8
Corpus Uteri	751	1	3	4	2	32	2	0	2	2	7
Other Female Genital	689	1	2	5	0	22	0	7	3	7	4
Prostate	3,489	9	16	32	17	96	8	12	15	42	34
Other Male Genital	215	0	2	2	1	9	0	0	1	2	2
Urinary Bladder	1,141	1	5	5	3	40	3	2	7	15	8
Kidney & Other Urinary	636	0	3	0	2	12	1	3	3	11	4
Eye, Brain & Other Nervous System	426	0	0	5	2	26	0	0	1	2	6
Lymph Nodes	784	1	1	4	2	30	3	2	3	10	8
Leukemia	632	1	2	7	1	16	5	0	2	4	5
All Others	1,211	4	4	13	2	30	4	2	3	16	14
All Reportable Sites	24,714	52	100	193	70	859	70	61	100	277	175

(Table continued on next page)



Table 7. Number of Cancer Cases by Site Group and County of Residence (Continued)

Primary Site	Columbia	Crawford	Dane	Dodge	Door	Douglas	Dunn	Eau Claire	Florence	Fond du Lac	Forest
Mouth and Pharynx	8	3	35	10	8	9	3	10	2	19	2
Stomach	2	2	29	3	1	6	1	5	0	4	0
Colon	17	9	140	39	19	20	15	32	2	62	2
Rectum & Rectosigmoid Junction	8	4	56	11	12	11	3	15	1	10	1
Pancreas	10	3	24	3	2	4	5	10	1	5	0
Other Gastrointestinal Tract	4	4	55	4	5	6	2	5	0	14	1
Trachea, Bronchus & Lung	45	9	192	41	14	39	5	43	1	59	2
Other Respiratory	9	1	23	8	6	7	0	3	0	6	0
Bone & Connective Tissue	3	1	18	1	1	3	0	7	0	5	0
Melanoma of Skin	7	1	61	6	3	8	5	15	1	15	2
Breast	41	15	267	55	32	30	13	54	1	100	6
Cervix Uteri	8	9	65	10	2	0	5	16	0	30	6
Corpus Uteri	15	4	49	5	2	3	3	6	0	16	2
Other Female Genital	17	5	47	9	3	9	4	9	1	15	3
Prostate	23	13	205	46	22	19	15	58	3	67	11
Other Male Genital	3	0	11	3	2	0	1	3	0	7	1
Urinary Bladder	10	4	82	7	19	7	8	12	2	18	1
Kidney & Other Urinary	5	2	32	8	8	0	3	12	0	20	0
Eye, Brain & Other Nervous System	8	2	38	5	3	1	0	11	0	10	1
Lymph Nodes	15	3	57	16	4	4	9	13	0	16	0
Leukemia	9	1	47	10	6	7	4	10	0	11	1
All Others	15	2	100	10	9	7	7	23	0	21	3
All Reportable Sites	282	97	1,633	310	183	200	111	372	15	530	45

(Table continued on next page)

**Table 7. Number of Cancer Cases by Site Group and County of Residence (Continued)**

<b>Primary Site</b>	<b>Grant</b>	<b>Green</b>	<b>Green Lake</b>	<b>Iowa</b>	<b>Iron</b>	<b>Jackson</b>	<b>Jefferson</b>	<b>Juneau</b>	<b>Kenosha</b>	<b>Kewaunee</b>	<b>La Crosse</b>
Mouth and Pharynx	4	5	3	1	2	4	6	6	21	1	12
Stomach	2	4	2	3	2	2	6	4	11	2	3
Colon	22	19	7	7	3	14	31	12	52	9	45
Rectum & Rectosigmoid Junction	16	3	4	3	0	2	18	3	14	5	20
Pancreas	4	4	1	2	0	7	8	1	12	2	11
Other Gastrointestinal Tract	4	7	5	2	3	3	16	13	19	3	20
Trachea, Bronchus & Lung	39	9	13	14	8	13	30	21	80	6	70
Other Respiratory	6	3	5	0	2	0	6	3	9	3	5
Bone & Connective Tissue	2	1	1	1	1	1	6	0	9	0	8
Melanoma of Skin	7	2	3	3	0	0	15	2	17	3	21
Breast	39	29	15	15	4	10	29	17	100	9	94
Cervix Uteri	5	5	4	0	0	0	11	8	23	3	42
Corpus Uteri	11	5	6	7	2	3	10	1	19	3	11
Other Female Genital	5	5	1	3	1	3	10	1	25	1	20
Prostate	45	23	21	14	6	14	42	31	86	14	73
Other Male Genital	0	3	1	0	0	0	5	3	9	2	6
Urinary Bladder	14	4	2	1	2	6	12	5	33	11	24
Kidney & Other Urinary	7	1	2	5	2	3	10	2	16	3	15
Eye, Brain & Other Nervous System	4	5	1	6	1	0	5	3	9	1	12
Lymph Nodes	9	9	10	2	0	2	8	4	17	5	16
Leukemia	12	3	1	4	2	3	5	1	13	4	5
All Others	11	7	5	4	1	8	13	3	29	6	38
All Reportable Sites	268	156	113	97	42	98	302	144	623	96	571

(Table continued on next page)

Table 7. Number of Cancer Cases by Site Group and County of Residence (Continued)

Primary Site	Lafayette	Langlade	Lincoln	Manitowoc	Marathon	Marinette	Marquette	Menominee	Milwaukee	Monroe	Oconto
Mouth and Pharynx	4	3	4	9	17	5	4	0	120	6	6
Stomach	2	0	3	6	13	1	0	0	87	0	2
Colon	6	12	25	36	52	11	10	1	450	17	11
Rectum & Rectosigmoid Junction	3	5	8	17	21	3	2	1	179	7	10
Pancreas	3	1	3	17	9	0	3	0	98	4	2
Other Gastrointestinal Tract	2	3	11	21	21	2	1	1	156	3	3
Trachea, Bronchus & Lung	14	11	26	63	50	30	24	2	706	24	26
Other Respiratory	3	3	9	4	9	1	1	0	76	2	7
Bone & Connective Tissue	0	2	0	0	6	2	1	0	53	3	1
Melanoma of Skin	0	3	6	5	18	2	2	1	124	8	6
Breast	14	11	34	64	82	16	10	1	763	26	24
Cervix Uteri	2	1	3	14	12	6	3	0	129	12	3
Corpus Uteri	4	2	7	14	13	5	3	1	159	5	5
Other Female Genital	3	3	7	13	18	3	0	0	138	3	5
Prostate	11	19	27	60	67	32	13	1	668	35	19
Other Male Genital	1	0	1	1	7	0	1	0	41	1	1
Urinary Bladder	6	2	14	23	19	9	8	1	228	5	8
Kidney & Other Urinary	0	2	9	11	17	7	4	0	115	3	6
Eye, Brain & Other Nervous System	0	4	0	11	6	5	2	0	66	6	2
Lymph Nodes	1	2	5	12	10	8	0	1	155	1	4
Leukemia	2	3	11	7	25	5	3	0	107	2	0
All Others	3	12	12	20	22	11	2	4	260	4	6
All Reportable Sites	84	104	225	428	514	164	97	15	4,878	177	157

(Table continued on next page)

**Table 7. Number of Cancer Cases by Site Group and County of Residence (Continued)**

<b>Primary Site</b>	<b>Oneida</b>	<b>Outagamie</b>	<b>Ozaukee</b>	<b>Pepin</b>	<b>Pierce</b>	<b>Polk</b>	<b>Portage</b>	<b>Price</b>	<b>Racine</b>	<b>Richland</b>	<b>Rock</b>
Mouth and Pharynx	3	18	8	1	7	3	9	0	21	0	22
Stomach	1	5	6	0	1	5	2	1	12	2	7
Colon	23	63	41	2	17	13	16	15	63	13	58
Rectum & Rectosigmoid Junction	11	25	9	3	4	5	7	3	34	0	17
Pancreas	7	13	8	0	2	1	4	3	11	0	10
Other Gastrointestinal Tract	9	18	13	2	3	5	5	3	31	3	19
Trachea, Bronchus & Lung	36	84	44	5	11	16	35	13	122	6	86
Other Respiratory	4	11	1	0	2	2	5	3	10	1	9
Bone & Connective Tissue	2	7	6	1	0	3	5	0	8	0	6
Melanoma of Skin	7	20	9	1	6	5	2	1	21	3	13
Breast	43	118	69	5	23	11	23	16	148	13	77
Cervix Uteri	13	10	6	2	4	4	8	1	9	4	29
Corpus Uteri	12	17	9	0	6	3	6	3	20	2	22
Other Female Genital	8	10	6	0	4	4	7	3	21	2	19
Prostate	36	81	59	7	11	11	29	12	153	7	86
Other Male Genital	2	5	4	1	0	2	4	0	6	0	5
Urinary Bladder	16	15	21	1	5	3	10	5	40	6	26
Kidney & Other Urinary	9	16	9	0	4	7	8	5	39	1	13
Eye, Brain & Other Nervous System	2	9	3	2	4	1	7	1	7	1	10
Lymph Nodes	8	20	7	0	3	4	7	4	25	1	15
Leukemia	8	16	11	2	1	6	5	3	21	0	14
All Others	9	26	20	4	4	11	8	5	43	5	25
<b>All Reportable Sites</b>	<b>269</b>	<b>607</b>	<b>369</b>	<b>39</b>	<b>122</b>	<b>125</b>	<b>212</b>	<b>100</b>	<b>865</b>	<b>70</b>	<b>588</b>

(Table continued on next page)

Table 7. Number of Cancer Cases by Site Group and County of Residence (Continued)

Primary Site	Rusk	St. Croix	Sauk	Sawyer	Shawano	Sheboygan	Taylor	Trempealeau	Vernon	Vilas	Walworth
Mouth and Pharynx	3	4	8	2	5	12	2	4	4	7	9
Stomach	1	3	5	3	4	4	0	3	6	6	6
Colon	9	17	26	18	22	56	6	12	17	21	41
Rectum & Rectosigmoid Junction	7	4	9	2	8	19	5	5	7	7	11
Pancreas	3	2	5	5	2	12	1	3	6	4	10
Other Gastrointestinal Tract	3	5	6	4	6	21	0	6	8	8	5
Trachea, Bronchus & Lung	5	14	26	20	19	63	7	14	24	29	68
Other Respiratory	1	4	3	2	3	10	1	3	2	3	5
Bone & Connective Tissue	0	1	0	2	1	3	1	1	2	1	2
Melanoma of Skin	3	4	4	1	5	18	2	5	3	3	9
Breast	9	29	38	13	37	77	20	21	31	26	63
Cervix Uteri	1	2	5	1	2	58	1	13	17	5	11
Corpus Uteri	3	1	10	1	8	15	1	4	6	6	15
Other Female Genital	1	7	9	2	8	19	2	3	3	3	8
Prostate	17	19	45	22	35	73	11	28	27	34	50
Other Male Genital	0	0	2	0	0	8	0	1	1	1	4
Urinary Bladder	4	8	9	3	10	28	6	9	7	13	23
Kidney & Other Urinary	3	4	6	2	4	8	0	5	8	5	7
Eye, Brain & Other Nervous System	2	2	4	2	4	9	2	1	7	2	9
Lymph Nodes	4	5	12	2	5	15	3	5	4	4	18
Leukemia	2	7	8	5	8	14	3	7	6	3	12
All Others	2	4	11	2	2	27	9	12	10	7	16
All Reportable Sites	83	146	251	114	198	569	83	165	206	198	402

(Table continued on next page)

**Table 7. Number of Cancer Cases by Site Group and County of Residence (Continued)**

Primary Site	Washburn	Washington	Waukesha	Waupaca	Waushara	Winnebago	Wood
Mouth and Pharynx	1	9	45	7	3	20	9
Stomach	2	6	20	3	0	12	6
Colon	12	52	151	27	19	69	33
Rectum & Rectosigmoid Junction	6	22	52	7	2	33	14
Pancreas	1	6	26	4	2	13	5
Other Gastrointestinal Tract	4	13	50	16	3	19	19
Trachea, Bronchus & Lung	14	58	194	30	18	113	47
Other Respiratory	6	5	15	2	5	16	5
Bone & Connective Tissue	0	5	11	1	2	14	4
Melanoma of Skin	2	8	63	5	2	28	12
Breast	16	90	301	41	22	117	66
Cervix Uteri	3	7	26	10	5	32	30
Corpus Uteri	4	7	60	5	6	19	24
Other Female Genital	3	8	38	9	1	25	15
Prostate	18	81	233	41	17	94	68
Other Male Genital	0	2	15	3	2	8	6
Urinary Bladder	3	19	68	13	9	35	30
Kidney & Other Urinary	3	6	42	10	2	26	15
Eye, Brain & Other Nervous System	1	4	37	2	1	11	9
Lymph Nodes	3	17	49	13	1	24	24
Leukemia	2	11	45	8	3	22	12
All Others	4	18	75	14	3	42	23
All Reportable Sites	108	454	1,616	271	128	792	476

**Table 8. Number of Cancer Cases for Large Cities and their Surrounding Counties by Major Site Group**

COUNTY Major City	MAJOR SITE GROUP									Total
	Colo- Rectal	Other GI	Respiratory	Breast	Female Genital	Male Genital	Urinary Tract	Leukemia & Lymph Nodes	Other	
BROWN	147	73	110	149	76	105	52	46	101	859
Green Bay	125	54	86	117	61	74	38	35	78	668
Rest of County	22	19	24	32	15	31	14	11	23	191
DANE	196	143	215	267	161	216	114	104	217	1,633
Madison	131	103	136	188	123	143	80	69	141	1,114
Rest of County	65	40	79	79	38	73	34	35	76	519
EAU CLAIRE	47	30	46	54	31	61	24	23	56	372
Eau Claire	40	27	37	42	25	49	19	17	51	307
Rest of County	7	3	9	12	6	12	5	6	5	65
KENOSHA	66	63	89	100	67	95	49	30	64	623
Kenosha	51	51	65	81	57	85	38	21	47	496
Rest of County	15	12	24	19	10	10	11	9	17	127
LA CROSSE	65	46	75	94	73	79	39	21	79	571
La Crosse	52	26	48	66	48	50	25	10	56	381
Rest of County	13	20	27	28	25	29	14	11	23	190
MILWAUKEE	629	461	782	763	426	709	343	262	503	4,878
Milwaukee	473	353	606	539	326	503	248	193	380	3,621
Wauwatosa	33	20	37	43	18	48	17	10	24	250
West Allis	58	38	54	71	30	60	28	29	34	402
Rest of County	65	50	85	110	52	98	50	30	65	605
OUTAGAMIE	88	54	95	118	37	86	31	36	62	607
Appleton	39	22	59	55	21	44	15	18	32	305
Rest of County	49	32	36	63	16	42	16	18	30	302
RACINE	97	75	132	148	50	159	79	46	79	865
Racine	67	51	83	104	30	108	52	29	58	582
Rest of County	30	24	49	44	20	51	27	17	21	283
ROCK	75	58	95	77	70	91	39	29	54	588
Janesville	30	28	40	38	39	36	10	11	24	256
Rest of County	45	30	55	39	31	55	29	18	30	332
SHEBOYGAN	75	49	73	77	92	81	36	29	57	569
Sheboygan	54	36	49	47	66	45	18	21	36	372
Rest of County	21	13	24	30	26	36	18	8	21	197
WAUKESHA	203	141	209	301	124	248	110	94	186	1,616
Waukesha	54	58	82	96	38	93	44	28	78	571
Rest of County	149	83	127	205	86	155	66	66	108	1,045
WINNEBAGO	102	64	129	117	76	102	61	46	95	792
Oshkosh	57	25	67	71	51	57	37	20	48	433
Rest of County	45	39	62	46	25	45	24	26	47	359

Notes: See Technical Notes at the end of this report for individual sites included in each major site group, and page 59 for how city residence was determined. In this table, the major site group “Other Gastrointestinal Tract” includes the site group “Mouth and Pharynx.” Cities selected for this table are those with an estimated population of at least 50,000. This table can be used to compare proportionate distributions of primary cancer site groups between a specified city and the county in which it is located.

**Table 9. Number of Cancer Cases by Site Group, Age and Sex**

PRIMARY SITE	AGE AND SEX										
	TOTAL	MALES	FEMALES	0-19		20-29		30-39		40-49	
				M	F	M	F	M	F	M	F
Mouth & Pharynx	642	431	211	2	2	7	4	21	8	47	16
Stomach	367	243	124	0	0	0	1	10	2	15	4
Colon	2,362	1,136	1,226	1	0	5	5	12	12	66	64
Rectum & Rectosigmoid Junction	893	482	411	1	0	0	4	15	10	47	25
Pancreas	467	246	221	0	0	0	0	1	2	11	6
Other Gastrointestinal Tract	777	470	307	3	3	4	2	14	5	39	14
Trachea, Bronchus & Lung	3,200	1,853	1,347	2	0	2	1	14	9	67	71
Other Respiratory	383	291	92	2	0	2	2	8	2	28	12
Bone & Connective Tissue	239	113	126	14	25	12	11	12	5	11	9
Melanoma of Skin	703	372	331	0	2	8	20	30	55	59	67
Breast	3,887	30	3,857	1	0	0	14	2	200	2	628
Cervix Uteri	820	-	820	-	18	-	242	-	273	-	138
Corpus Uteri	751	-	751	-	0	-	2	-	24	-	78
Other Female Genital	689	-	689	-	9	-	18	-	55	-	98
Prostate	3,489	3,489	-	0	-	0	-	1	-	38	-
Other Male Genital	215	215	-	6	-	52	-	77	-	33	-
Urinary Bladder	1,141	833	308	0	0	4	1	16	3	36	17
Kidney & Other Urinary	636	380	256	7	9	1	2	9	5	38	17
Eye, Brain & Other Nervous System	426	228	198	29	22	12	9	32	24	30	22
Lymph Nodes	784	433	351	25	10	39	23	32	27	53	27
Leukemia	632	354	278	34	26	7	7	12	17	20	20
All Others	1,211	573	638	8	7	8	37	21	61	63	53
All Reportable Sites	24,714	12,172	12,542	135	133	163	405	339	799	703	1,386

Note: Age groupings vary in this table; childhood cancers (0-19) are followed by 10-year groupings up to age 59. 5-year age groups begin at age 60. See Technical Notes at the end of this report for the individual sites included in each site group.

(Table continued on next page)

- Cancer is rare among children and young adults. Fifty-nine percent of cancer cases were diagnosed among adults age 65 and older. The most common cancers, such as lung, colon, breast and prostate, increased sharply with age among both males and females.



**Table 9. Number of Cancer Cases by Site Group, Age and Sex (Continued)**

	AGE AND SEX													
	50-59		60-64		65-69		70-74		75-79		80-84		85+	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Mouth & Pharynx	94	42	55	19	75	30	54	23	40	28	24	25	12	14
Stomach	26	10	22	8	36	11	34	19	45	12	33	26	22	31
Colon	130	83	121	86	173	131	191	179	182	247	164	220	91	199
Rectum & Rectosigmoid Junction	89	40		37	67	60	82	77	74	58	29	54	25	
Pancreas	39	29	27	23	47	22	45	30	37	47	25	22	14	40
Other Gastrointestinal Tract	76	31	44	26	89	37	77	57	65	58	37	33	22	41
Trachea, Bronchus & Lung	258	216	237	178	340	230	387	238	291	209	180	137	75	58
Other Respiratory	57	18	43	13	58	10	35	12	29	11	22	5	7	7
Bone & Connective Tissue	14	15	10	4	12	8	10	13	7	7	8	17	3	12
Melanoma of Skin	55	50	26	27	50	24	61	25	42	24	25	16	15	21
Breast	3	743	4	373	7	468	2	505	5	396	3	291	2	239
Cervix Uteri	-	62	-	20	-	28	-	15	-	7	-	11	-	6
Corpus Uteri	-	180	-	100	-	92	-	103	-	81	-	64	-	27
Other Female Genital	-	111	-	65	-	83	-	80	-	60	-	56	-	54
Prostate	404	-	490	-	739	-	752	-	555	-	321	-	189	-
Other Male Genital	11	-	3	-	6	-	5	-	11	-	6	-	5	-
Urinary Bladder	100	31	75	29	136	29	132	48	153	49	106	54	75	47
Kidney & Other Urinary	75	33	33	23	63	28	62	48	43	38	41	27	8	26
Eye, Brain & Other Nervous System	27	19	22	20	17	16	19	21	24	24	13	15	3	6
Lymph Nodes	57	40	33	31	57	34	44	43	48	47	23	42	22	27
Leukemia	35	24	25	19	62	38	51	30	42	38	42	29	24	30
All Others	61	75	64	46	84	58	94	72	63	82	52	74	55	73
All Reportable Sites	1,611	1,852	1,387	1,147	2,118	1,437	2,137	1,638	1,756	1,523	1,154	1,218	669	1,004

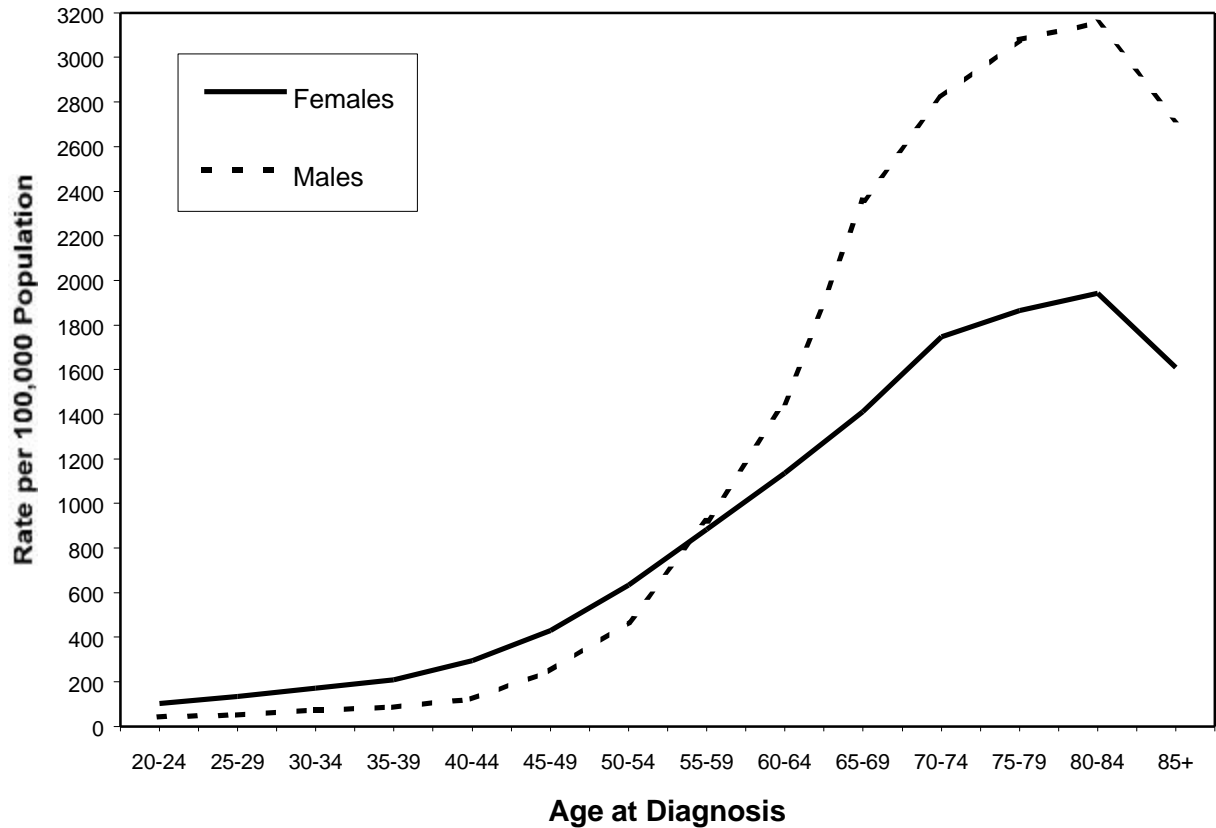
Note: Age groupings vary in this table; childhood cancers (0-19) are followed by 10-year groupings up to age 59. 5-year age groups begin at age 60. See Technical Notes at the end of this report for the individual sites included in each site group.

**Table 10. Number of Cancer Cases by Race, Age and Sex**

AGE GROUP								
	0 - 14	15 - 24	25 - 44	45 - 64	65 - 74	75 - 84	85 +	TOTAL
MALES								
White	83	105	636	3,173	4,060	2,825	646	11,528
African American	7	3	33	198	131	43	9	424
Other	3	3	11	39	29	26	6	117
Unknown	2	1	8	33	35	16	8	103
Total Males	95	112	688	3,443	4,255	2,910	669	12,172
FEMALES								
White	64	195	1,508	3,548	2,940	2,669	979	11,903
African American	5	17	78	140	90	38	16	384
Other	3	6	31	51	32	13	4	140
Unknown	2	8	25	41	13	21	5	115
Total Females	74	226	1,642	3,780	3,075	2,741	1,004	12,542
All Reportable Sites	169	338	2,330	7,223	7,330	5,651	1,673	24,714

- For white males, the largest number of cases were diagnosed at ages 65-74. For African American males and males in the “Other” race category, the largest number of cases were diagnosed at ages 45-64.
- For females of all race groups, the largest number of cancer cases were diagnosed at ages 45-64.

**Figure 1. Age-Specific Cancer Incidence Rates, by Sex**



- In general, cancer incidence increases with age for both males and females. At approximately age 55 the male and female incidence rates intersect, with the female incidence rate being higher prior to age 55 and the male incidence rate climbing higher after age 55.

**Table 11. Number and Percent of Cancer Cases by Site Group and Stage of Disease**

	STAGE OF DISEASE										
	IN SITU		LOCAL		REGIONAL		DISTANT		NOT STATED		
PRIMARY SITE	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Mouth & Pharynx	18	2.8	298	46.4	249	38.8	40	6.2	37	5.8	642
Stomach	7	1.9	86	23.4	120	32.7	111	30.2	43	11.7	367
Colon	138	5.8	672	28.5	1,002	42.4	376	15.9	174	7.4	2,362
Rectum & Rectosigmoid Junction	55	6.2	315	35.3	325	36.4	118	13.2	80	9.0	893
Pancreas	0	0.0	68	14.6	154	33.0	183	39.2	62	13.3	467
Other Gastrointestinal Tract	14	1.8	216	27.8	233	30.0	185	23.8	129	16.6	777
Trachea, Bronchus & Lung	11	0.3	775	24.2	895	28.0	1,201	37.5	318	9.9	3,200
Other Respiratory	12	3.1	178	46.5	128	33.4	29	7.6	36	9.4	383
Bone & Connective Tissue	0	0.0	119	49.4	45	18.8	44	18.4	31	13.0	239
Melanoma of Skin	185	26.3	436	62.0	34	4.8	23	3.3	25	3.6	703
Breast	542	13.9	2,106	54.2	915	23.5	168	4.3	156	4.0	3,887
Cervix Uteri	607	74.0	104	12.7	70	8.5	18	2.2	21	2.6	820
Corpus Uteri	0	0.0	556	74.0	116	15.4	41	5.5	38	5.1	751
Other Female Genital	80	11.6	203	29.5	121	17.6	226	32.8	59	8.6	689
Prostate	33	0.9	2,535	72.7	431	12.4	188	5.4	302	8.7	3,489
Other Male Genital	6	2.8	140	65.1	40	18.6	21	9.8	8	3.7	215
Urinary Bladder	309	27.1	591	51.8	126	11.0	38	3.3	77	6.7	1,141
Kidney & Other Urinary	9	1.4	300	47.2	157	24.7	130	20.3	40	6.3	636
Eye, Brain & Other Nervous System	3	0.7	280	65.7	54	12.7	33	7.7	56	13.1	426
Lymph Nodes	0	0.0	165	20.9	172	21.7	447	56.6	0	0.0	784
Leukemia	0	0.0	0	0.0	0	0.0	632	100.0	0	0.0	632
All Others	6	0.5	263	21.7	109	9.0	519	42.9	314	25.9	1,211
All Reportable Sites	2,035	8.3	10,406	42.1	5,496	22.2	4,771	19.3	2,006	8.1	24,714

Notes: See pages 3 and 4 for definitions of the "stage of disease" categories. See Technical Notes at the end of this report for the individual sites included in each major site group.

- Approximately one half of Wisconsin cancers in 1996 were diagnosed early, at either *in situ* or local stages. Cervical cancer was diagnosed at the earliest stage in 74 percent of reported cases. Prostate cancer was diagnosed at the local stage in 73 percent of reported cases.

**Table 12. Percent of Cancer Cases by Site Group and Diagnostic Confirmation**

PRIMARY SITE	TYPE OF DIAGNOSTIC CONFIRMATION									
	Positive Histology	Cyto-logy/ Blood	Micro- scopic NOS	Lab Test/ Marker	Surgical Obser- vation	Imaging	Other Clinical Methods	Autopsy	Not Stated	Total (number)
Mouth & Pharynx	95.6	0.8	0.9	0.0	0.6	0.3	0.2	0.2	1.4	642
Stomach	96.2	0.0	0.8	0.0	0.3	2.5	0.0	0.0	0.3	367
Colon	95.2	0.5	0.9	0.1	0.4	1.6	0.3	0.3	0.7	2,362
Rectum & Recto- Sigmoid Junction	96.4	0.0	0.8	0.3	0.4	0.8	0.7	0.1	0.4	893
Pancreas	71.5	7.5	0.4	0.6	1.9	15.8	0.9	0.4	0.9	467
Other Gastro- Intestinal Tract	86.0	4.0	2.7	0.3	1.4	4.0	1.0	0.1	0.5	777
Trachea, Bronchus & Lung	83.3	8.5	0.9	0.1	0.2	5.6	0.3	0.5	0.6	3,200
Other Respiratory	94.3	1.8	1.6	0.3	0.3	1.0	0.0	0.0	0.8	383
Bone & Connective Tissue	93.7	0.8	2.9	0.0	0.0	0.8	0.0	0.8	0.8	239
Melanoma of Skin	98.2	0.1	1.4	0.0	0.0	0.0	0.1	0.0	0.1	703
Breast	97.8	0.3	0.8	0.0	0.2	0.5	0.1	0.1	0.2	3,887
Cervix Uteri	96.8	2.0	0.7	0.1	0.0	0.1	0.0	0.0	0.2	820
Corpus Uteri	98.9	0.1	0.4	0.0	0.0	0.3	0.0	0.0	0.3	751
Other Female Genital	94.0	2.0	0.4	0.6	0.0	1.3	0.6	0.1	0.9	689
Prostate	95.9	0.1	0.2	2.0	0.1	0.2	0.5	0.0	0.7	3,489
Other Male Genital	98.6	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.5	215
Urinary Bladder	95.4	1.1	2.3	0.2	0.2	0.1	0.3	0.1	0.5	1,141
Kidney & Other Urinary	88.2	1.9	5.7	0.0	0.2	2.8	0.5	0.0	0.8	636
Eye, Brain & Other Nervous System	85.9	0.0	7.7	0.0	1.6	3.5	0.2	0.0	0.9	426
Lymph Nodes	96.4	1.5	1.0	0.3	0.0	0.5	0.0	0.0	0.3	784
Leukemia	76.7	5.7	11.4	3.0	0.0	0.0	0.8	0.8	1.6	632
All Others	83.5	4.0	2.7	1.2	0.2	5.9	0.7	0.7	1.1	1,211
<b>All Reportable Sites</b>										
Percent	92.4	2.1	1.5	0.5	0.3	2.0	0.3	0.2	0.6	100.0
Number	22,830	529	375	129	71	493	86	50	151	24,714

Notes: Cancers listed under “Microscopic NOS” (not otherwise specified) were diagnosed microscopically but without specification of positive histology or cytology. Percents may not add to 100 due to rounding. See Technical Notes on page 60 for definitions of type of diagnostic confirmation.

**Table 13. Number and Percent of Cancer Cases By Site Group and Tumor Cell Type**

PRIMARY SITE	CELL TYPE GROUP									
	CARCINOMA/ ADENOCARCINOMA		OTHER SOLID		NON-SOLID		UNKNOWN		TOTAL	
	Number	%	Number	%	Number	%	Number	%	Number	%
Mouth & Pharynx	548	85	45	7	41	6	8	1	642	100
Stomach	311	85	15	4	31	8	10	3	367	100
Colon	2,302	97	0	0	11	<1	49	2	2,362	100
Rectum & Rectosigmoid Junction	866	97	8	1	3	<1	16	2	893	100
Pancreas	407	87	0	0	0	0	60	12	467	100
Other Gastrointestinal Tract	652	84	54	7	29	4	42	5	777	100
Trachea, Bronchus & Lung	2,970	93	60	2	8	<1	162	5	3,200	100
Other Respiratory	282	74	80	21	10	3	11	3	383	100
Bone & Connective Tissue	0	0	179	74	51	21	9	4	239	100
Melanoma of Skin	0	0	703	100	0	0	0	0	703	100
Breast	3,789	97	48	2	6	<1	44	1	3,887	100
Cervix Uteri	799	97	14	2	0	0	7	1	820	100
Corpus Uteri	677	90	72	10	0	0	2	<1	751	100
Other Female Genital	586	85	74	11	0	0	29	4	689	100
Prostate	3,429	98	0	0	0	0	60	2	3,489	100
Other Male Genital	30	14	180	84	4	2	1	<1	215	100
Urinary Bladder	1,106	97	25	2	1	<1	9	1	1,141	100
Kidney & Other Urinary	592	93	21	3	3	<1	20	3	636	100
Eye, Brain & Other Nervous System	0	0	372	87	44	10	10	2	426	100
Lymph Nodes	0	0	0	0	781	99	3	<1	784	100
Leukemia	0	0	0	0	632	100	0	0	632	100
All Others	552	46	229	19	346	29	84	7	1,211	100
All Reportable Sites	19,898	81	2,179	9	2,001	8	636	3	24,714	100%

Notes: Percents may not add to 100 due to rounding. See Technical Notes at the end of this report for the individual sites included in each site group.

- Tumor cell type is often closely related to the type of tissue in which the tumor originated. Solid tumors such as carcinomas (developing from epithelial cells in the skin or organ surface) and adenocarcinomas (tumors developed from glandular tissue) comprised the majority of cancers reported (81%).
- Other solid tumors include sarcomas (originating from bone, cartilage, fat, muscle, or other connective tissue), nerve cell and germ cell tumors. Lymphomas, leukemias and plasma cell tumors are nonsolid tumors because they affect cells that circulate throughout the body. Cell type often determines the nature of the cancer's growth and its responsiveness to treatment.

**Table 14. Number and Percent of Treatment Modalities by Site Group**

PRIMARY SITE	DEFINITIVE TREATMENT MODALITY								Total Number
	Surgical Only		Surgical and Nonsurgical		Nonsurgical Only		No Cancer-Directed Treatment Reported		
	Number	%	Number	%	Number	%	Number	%	
Mouth & Pharynx	236	36.8	127	19.8	180	28.0	99	15.4	642
Stomach	142	38.7	37	10.1	73	19.9	115	31.3	367
Colon	1,594	67.5	308	13.0	125	5.3	335	14.2	2,362
Rectum & Rectosigmoid Junction	415	46.5	232	26.0	106	11.9	140	15.7	893
Pancreas	39	8.4	40	8.6	117	25.1	271	58.0	467
Other Gastrointestinal Tract	205	26.4	73	9.4	202	26.0	297	38.2	777
Trachea, Bronchus & Lung	509	15.9	231	7.2	1,411	44.1	1,049	32.8	3,200
Other Respiratory	90	23.5	75	19.6	147	38.4	71	18.5	383
Bone & Connective Tissue	64	26.8	66	27.6	61	25.5	48	20.1	239
Melanoma of Skin	574	81.7	22	3.1	6	0.9	101	14.4	703
Breast	1,619	41.7	1,607	41.3	367	9.4	294	7.6	3,887
Cervix Uteri	618	75.4	39	4.8	76	9.3	87	10.6	820
Corpus Uteri	445	59.3	209	27.8	39	5.2	58	7.7	751
Other Female Genital	296	43.0	216	31.3	67	9.7	110	16.0	689
Prostate	1,306	37.4	227	6.5	1,149	32.9	807	23.1	3,489
Other Male Genital	82	38.1	95	44.2	20	9.3	18	8.4	215
Urinary Bladder	846	74.1	146	12.8	32	2.8	117	10.3	1,141
Kidney & Other Urinary	401	63.1	58	9.1	57	9.0	120	18.9	636
Eye, Brain & Other Nervous System	80	18.8	151	35.4	111	26.1	84	19.7	426
Lymph Nodes	46	5.9	63	8.0	432	55.1	243	31.0	784
Leukemia	3	0.5	2	0.3	298	47.2	329	52.1	632
All Others	207	17.1	175	14.5	379	31.3	450	37.2	1,211
All Reportable Sites	9,817	39.7	4,199	17.0	5,455	22.1	5,243	21.2	24,714

Notes: The category "No Cancer-Directed Treatment Reported" includes cases which received only noncancer-directed treatment (pain management, etc.), cases receiving care out-of-state for which no treatment information was available, cases for which treatment was refused by the patient, cases for which treatment was ruled out by the physician, and cases for which treatment was provided but not reported to WCRS. See Technical Notes on pages 60 and 61 for definitions of treatment modalities. See Technical Notes at the end of this report for the individual sites included in each site group.

- Surgery is the primary treatment for most cancers except systemic cancers, such as lymphoma and leukemia. In 1996, 57 percent of all diagnosed cancers were treated by surgery; 40 percent received surgery only and 17 percent received surgery with radiation, chemotherapy or other nonsurgical treatment.

**Table 15. Percent of Cancer-Directed Treatment Types by Selected Site Groups, Local Stage of Disease**

PRIMARY SITE	Percent of Treatment Type					Number of Cases
	Surgery	Radiotherapy	Chemotherapy	Hormone Therapy	Endocrine Surgery	
Stomach	82%	10%	22%	6%	0%	67
Colon	98	1	4	0	0	726
Rectum & Recto-sigmoid Junction	92	20	15	0	0	333
Pancreas	54	46	51	3	0	35
Trachea, Bronchus & Lung	68	29	18	0	0	577
Melanoma of Skin	100	0	1	0	0	551
Breast	92	32	10	18	0	2,495
Cervix Uteri	97	5	1	0	0	641
Corpus Uteri	96	24	2	2	1	527
Prostate	57	9	0	12	2	2,012
Urinary Bladder	99	3	8	0	0	833
Kidney & Other Urinary	100	2	4	0	0	276
Eye, Brain & Other Nervous System	69	72	24	3	0	236
Total	84%	23%	7%	8%	0%	9,309

**Table 16. Percent of Cancer-Directed Treatment Types by Selected Site Groups, Non-Local Stage of Disease**

PRIMARY SITE	Percent of Treatment Type					Number of Cases
	Surgery	Radiotherapy	Chemotherapy	Hormone Therapy	Endocrine Surgery	
Stomach	68%	23%	35%	2%	0%	165
Colon	93	2	29	0	0	1,233
Rectum & Recto-sigmoid Junction	82	43	48	0	0	382
Pancreas	37	39	68	0	0	155
Trachea, Bronchus & Lung	22	66	48	1	0	1,476
Melanoma of Skin	93	15	7	2	0	41
Breast	85	29	40	26	0	1,005
Cervix Uteri	38	86	11	4	0	79
Corpus Uteri	91	45	17	9	0	141
Prostate	62	25	2	24	10	530
Urinary Bladder	89	16	28	1	0	148
Kidney & Other Urinary	82	22	20	4	0	211
Eye, Brain & Other Nervous System	54	76	41	9	0	70
Total	65%	35%	35%	8%	1%	5,636

Notes: Tables 15 and 16 exclude cases with no reported cancer-directed therapy and cases with unknown stage of disease. Percents across may add up to more than 100% as many tumors receive multiple types of treatment.

- Surgery was the most frequently reported treatment for cancers diagnosed at the local stage. The percentage of radiation and chemotherapy treatments increased for non-local cancers.



**Table 17. Number and Age-Adjusted Rate of Cancer Deaths by Site Group and Sex**

PRIMARY SITE	MALE		FEMALE		TOTAL	
	Number	Rate	Number	Rate	Number	Rate
Mouth & Pharynx	94	3.4	55	1.5	149	2.4
Stomach	150	5.4	76	1.7	226	3.3
Colon	460	16.4	473	11.1	933	13.4
Rectum & Rectosigmoid Junction	95	3.5	85	1.9	180	2.7
Pancreas	265	9.6	299	7.3	564	8.3
Other Gastrointestinal Tract	396	14.4	228	5.9	624	9.7
Trachea, Bronchus & Lung	1,535	56.3	1,055	30.3	2,590	41.6
Other Respiratory	69	2.6	35	1.1	104	1.7
Bone & Connective Tissue	47	1.7	49	1.4	96	1.6
Melanoma of Skin	87	3.1	63	1.7	150	2.3
Breast	8	0.3	815	22.5	823	12.5
Cervix Uteri	-	-	69	2.0	69	1.1
Corpus Uteri	-	-	55	1.4	55	0.8
Other Female Genital	-	-	388	10.7	388	5.9
Prostate	748	24.8	-	-	748	9.6
Other Male Genital	10	0.3	-	-	10	0.2
Urinary Bladder	168	5.8	79	1.7	247	3.4
Kidney & Other Urinary	156	5.8	120	3.3	276	4.5
Eye, Brain & Other Nervous System	144	5.4	118	3.8	262	4.5
Lymphoma	287	10.1	238	5.9	525	7.8
Leukemia	236	8.5	195	5.1	431	6.6
All Others	517	18.6	474	12.1	991	14.9
Total Cancer Deaths	5,472	196.0	4,969	132.4	10,441	158.7

Notes: Rates are per 100,000 residents, age-adjusted to the 1970 United States population. "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59). See Technical Notes at the end of this report for the individual sites included in each site group.

- The 1996 age-adjusted cancer mortality rate for males of 196 per 100,000 population was lower than the 1995 rate of 200 per 100,000.
- The female cancer mortality rate remained relatively constant at 132 per 100,000 in 1996 compared with 133 per 100,000 in 1995.
- The overall age-adjusted 1996 cancer mortality rate of 159 per 100,000 showed a slight decrease from the 1995 rate of 161 per 100,000.

**Table 18. Number and Percent of Cancer Deaths by Site Group and Race: Males**

PRIMARY SITE	White		African American		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mouth & Pharynx	93	1.8	1	0.5	0	0.0	94	1.7
Stomach	139	2.7	8	3.7	3	6.7	150	2.7
Colon	439	8.4	19	8.8	2	4.4	460	8.4
Rectum & Rectosigmoid Junction	90	1.7	2	0.9	3	6.7	95	1.7
Pancreas	250	4.8	12	5.5	3	6.7	265	4.8
Other Gastrointestinal Tract	369	7.1	23	10.6	4	8.9	396	7.2
Trachea, Bronchus & Lung	1,438	27.6	84	38.7	13	28.9	1,535	28.0
Other Respiratory	66	1.3	1	0.5	2	4.4	69	1.3
Bone & Connective Tissue	45	0.9	1	0.5	1	2.2	47	0.9
Melanoma of Skin	87	1.7	0	0.0	0	0.0	87	1.6
Breast	8	0.2	0	0.0	0	0.0	8	0.2
Prostate	713	13.7	30	13.8	5	11.1	748	13.7
Other Male Genital	9	0.2	0	0.0	1	2.2	10	0.2
Urinary Bladder	165	3.2	1	0.5	2	4.4	168	3.1
Kidney & Other Urinary	151	2.9	2	0.9	3	6.7	156	2.8
Eye, Brain & Other Nervous System	143	2.7	1	0.5	0	0.0	144	2.6
Lymphoma	280	5.4	7	3.2	0	0.0	287	5.2
Leukemia	231	4.4	4	1.8	1	2.2	236	4.3
All Others	494	9.5	21	9.7	2	4.4	517	9.4
Total Cancer Deaths	5,210	100.0	217	100.0	45	100.0	5,472	100.0

Notes: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59). Percents are calculated from the total number of deaths in each race category. See Technical Notes at the end of this report for the individual sites included in each site group.

- Lung cancer was the leading cause of cancer death among males of all races, accounting for 28 percent of all cancer deaths among males.
- Prostate cancer was the second leading cause of cancer death among males, accounting for 14 percent of cancer deaths among males.

**Table 19. Number and Percent of Cancer Deaths by Site Group and Race: Females**

PRIMARY SITE	White		African American		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mouth & Pharynx	55	1.1	1	0.6	0	0.0	55	1.1
Stomach	68	1.4	5	3.0	3	7.0	76	1.5
Colon	454	9.5	16	9.8	3	7.0	473	9.5
Rectum & Rectosigmoid Junction	83	1.7	2	1.2	0	0.0	85	1.7
Pancreas	290	6.1	8	4.9	1	2.3	299	6.0
Other Gastrointestinal Tract	214	4.5	9	5.5	5	11.6	228	4.6
Trachea, Bronchus & Lung	1,006	21.1	38	23.2	11	25.6	1,055	21.2
Other Respiratory	34	0.7	1	0.6	0	0.0	35	0.7
Bone & Connective Tissue	47	1.0	2	1.2	0	0.0	49	1.0
Melanoma of Skin	63	1.3	0	0.0	0	0.0	63	1.3
Breast	788	16.6	26	15.9	1	2.3	815	16.4
Cervix Uteri	55	1.2	9	5.5	5	11.6	69	1.4
Corpus Uteri	49	1.0	5	3.0	1	2.3	55	1.1
Other Female Genital	374	7.9	10	6.1	3	7.0	388	7.8
Urinary Bladder	75	1.6	4	2.4	0	0.0	79	1.6
Kidney & Other Urinary	120	2.5	0	0.0	0	0.0	120	2.4
Eye, Brain & Other Nervous System	116	2.4	1	0.6	1	2.3	118	2.4
Lymphoma	233	4.9	4	2.4	1	2.3	238	4.8
Leukemia	186	3.9	6	3.7	3	7.0	195	3.9
All Others	452	9.5	17	10.4	5	11.6	474	9.5
Total Cancer Deaths	4,762	100.0	164	100.0	43	100.0	4,969	100.0

Notes: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59). Percents are calculated from the total number of deaths in each race category. See Technical Notes at the end of this report for the individual sites included in each site group.

- Lung cancer was the leading cause of cancer death for females in all race groups, accounting for 21 percent of all cancer deaths among females.
- Breast cancer was the second leading cause of cancer death among white and African American females, accounting for 17 percent of cancer deaths among white females and 16 percent of cancer deaths among African American females.

**Table 20. Number and Age-Adjusted Rate of Cancer Deaths by Major Site Group and Region**

PRIMARY SITE		REGION					
		SOUTH	SOUTHEAST	NORTHEAST	WEST	NORTH	TOTAL
Colorectal	NUMBER	206	419	222	160	106	1,113
	RATE	17.0	16.8	14.5	16.2	15.6	16.1
Other Gastrointestinal Tract	NUMBER	227	613	344	223	156	1,563
	RATE	19.8	26.2	22.9	24.3	22.3	23.7
Respiratory	NUMBER	409	1,095	540	371	279	2,694
	RATE	38.3	49.1	38.4	41.6	44.6	43.3
Breast	NUMBER	139	328	162	113	81	823
	RATE	12.4	13.8	10.9	12.4	11.4	12.5
Female Genital	NUMBER	87	220	112	59	34	512
	RATE	8.0	9.3	7.5	6.2	4.8	7.8
Male Genital	NUMBER	111	279	183	114	71	758
	RATE	8.8	10.5	9.9	10.0	8.4	9.8
Urinary Tract	NUMBER	87	208	105	71	52	523
	RATE	8.0	8.7	7.1	7.3	7.5	7.9
Lymphoma & Leukemia	NUMBER	165	348	225	118	100	956
	RATE	14.2	14.6	15.3	12.3	14.7	14.4
All Others	NUMBER	253	553	320	237	136	1,499
	RATE	23.0	23.6	22.4	25.9	21.2	23.3
Total Cancer Deaths	NUMBER	1,684	4,063	2,213	1,466	1,015	10,441
	RATE	149.4	172.6	149.0	156.2	150.5	158.7

Notes: Rates are per 100,000 residents, age-adjusted to the 1970 United States population. The regions used are the Department of Health and Family Services Regions. See Map on page 71 for regional boundaries. "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59). See Technical Notes at the end of this report for the individual sites included in each major site group.

- The Southeastern region experienced a higher cancer mortality rate (173 per 100,000) than did the state as a whole (159 per 100,000). All other regions had cancer mortality rates somewhat lower than the state rate.

**Table 21. Number and Age-Adjusted Rate of Cancer Deaths by Major Site Group, Three Most Populous Wisconsin Counties**

PRIMARY SITE	COUNTY					
	DANE		MILWAUKEE		WAUKESHA	
	Number	Rate	Number	Rate	Number	Rate
Colorectal	68	16.5	237	19.3	44	11.8
Other Gastrointestinal Tract	79	20.4	342	30.1	84	22.1
Respiratory	137	36.8	599	55.1	131	36.4
Breast	47	11.9	157	13.7	67	17.2
Female Genital	31	8.3	115	9.8	35	9.3
Male Genital	41	10.0	140	10.5	42	10.9
Urinary Tract	28	7.6	101	8.2	35	9.3
Leukemia & Lymph Nodes	51	12.8	161	13.4	54	14.4
All Others	101	26.1	315	27.6	92	24.3
Total Cancer Deaths	583	150.3	2,167	187.7	584	155.7

Notes: “Total cancer deaths” include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59). Rates are per 100,000 residents, age-adjusted to the 1970 United States population. See Technical Notes at the end of this report for the individual sites included in each major site group. In this table the major site group “Other Gastrointestinal Tract” includes the site group “Mouth and Pharynx.” The counties selected for this table are the three most populous counties in the state, based on 1996 population estimates.

- Cancer mortality rates for Dane and Waukesha counties (150 and 156 per 100,000 population, respectively) were below the statewide rate (159 per 100,000). The cancer mortality rate in Milwaukee county (188 per 100,000) was above the statewide rate.

**Table 22. Number of Cancer Deaths by Site Group and County of Residence**

Primary Site	Total	Adams	Ashland	Barron	Bayfield	Brown	Buffalo	Burnett	Calumet	Chippewa	Clark
Mouth and Pharynx	149	0	0	3	1	4	1	0	1	2	0
Stomach	226	1	2	1	1	6	0	1	1	2	3
Colon	933	5	10	8	5	32	5	5	5	13	6
Rectum & Rectosigmoid Junction	180	1	0	2	2	5	1	4	0	2	0
Pancreas	564	2	2	8	4	18	1	2	4	6	2
Other Gastrointestinal Tract	624	5	2	8	1	20	2	4	8	6	7
Trachea, Bronchus & Lung	2,590	17	8	24	11	73	8	12	12	21	9
Other Respiratory	104	1	0	0	0	1	1	1	0	0	0
Bone & Connective Tissue	96	0	1	0	1	6	0	1	0	0	1
Melanoma of Skin	150	1	0	1	1	4	0	1	1	1	2
Breast	823	1	2	9	2	25	2	2	4	8	9
Cervix Uteri	69	0	0	1	0	2	0	1	0	1	0
Corpus Uteri	55	0	0	0	0	2	0	0	1	1	0
Other Female Genital	388	2	3	2	0	11	1	5	6	2	3
Prostate	748	4	5	5	0	18	5	1	6	6	6
Other Male Genital	10	0	0	0	0	1	0	0	0	0	0
Urinary Bladder	247	0	1	0	1	11	0	1	3	2	0
Kidney & Other Urinary	276	0	1	4	0	10	1	0	1	2	0
Eye, Brain & Other Nervous System	262	0	0	3	0	14	1	3	4	5	5
Lymph Nodes	525	4	1	3	4	20	2	2	3	2	2
Leukemia	431	1	2	8	4	20	3	0	3	2	2
All Others	991	4	7	20	3	32	2	6	6	12	13
Total Cancer Deaths	10,441	49	47	110	41	335	36	52	69	96	70

Note: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on Page 59).

(Table continued on next page)

**Table 22. Number of Cancer Deaths by Site Group and County of Residence (Continued)**

Primary Site	Columbia	Crawford	Dane	Dodge	Door	Douglas	Dunn	Eau Claire	Florence	Fond du Lac	Forest
Mouth and Pharynx	1	2	11	1	1	3	0	0	0	5	0
Stomach	2	2	8	2	1	2	2	4	1	0	0
Colon	13	8	57	19	6	6	13	12	0	23	0
Rectum & Rectosigmoid Junction	0	3	11	2	3	1	0	4	0	2	0
Pancreas	4	0	33	5	4	6	4	11	0	11	1
Other Gastrointestinal Tract	4	1	27	3	7	8	7	7	0	8	3
Trachea, Bronchus & Lung	30	6	132	40	4	39	9	38	1	38	8
Other Respiratory	0	0	5	1	0	2	0	1	0	3	0
Bone & Connective Tissue	0	0	6	0	0	1	2	2	0	2	0
Melanoma of Skin	3	0	15	3	1	0	1	4	0	6	0
Breast	10	4	47	16	8	10	5	9	0	14	0
Cervix Uteri	0	1	4	0	0	3	1	2	0	1	0
Corpus Uteri	1	0	4	0	0	0	1	1	0	0	0
Other Female Genital	3	1	23	10	3	5	1	5	0	7	1
Prostate	3	1	40	11	4	8	5	17	0	16	5
Other Male Genital	0	0	1	0	0	0	0	0	0	0	0
Urinary Bladder	4	3	11	6	2	0	3	4	0	4	0
Kidney & Other Urinary	3	0	17	6	4	0	2	7	0	0	1
Eye, Brain & Other Nervous System	3	1	19	3	2	2	4	3	1	5	0
Lymph Nodes	5	2	30	14	2	3	4	5	1	10	0
Leukemia	4	2	21	8	1	8	3	1	0	10	2
All Others	14	4	61	19	8	14	4	20	1	23	3
Total Cancer Deaths	107	41	583	169	61	121	71	157	5	188	24

Note: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59).

(Table continued on next page)

**Table 22. Number of Cancer Deaths by Site Group and County of Residence (Continued)**

Primary Site	Grant	Green	Green Lake	Iowa	Iron	Jackson	Jefferson	Juneau	Kenosha	Kewaunee	La Crosse
Mouth and Pharynx	0	2	0	0	2	0	3	2	1	0	4
Stomach	3	3	0	1	1	0	1	1	4	2	1
Colon	14	7	3	2	0	2	18	7	20	7	9
Rectum & Rectosigmoid Junction	1	0	1	1	1	0	4	1	7	0	6
Pancreas	1	3	1	2	0	3	11	4	16	1	9
Other Gastrointestinal Tract	7	3	5	2	0	3	6	6	17	2	14
Trachea, Bronchus & Lung	16	11	11	5	5	11	34	20	75	8	63
Other Respiratory	1	0	1	0	0	0	2	1	3	0	0
Bone & Connective Tissue	3	0	0	0	1	0	0	0	5	1	3
Melanoma of Skin	1	3	0	2	1	2	3	1	3	0	1
Breast	11	5	2	2	4	5	15	2	21	1	18
Cervix Uteri	0	0	0	0	1	0	2	0	1	0	1
Corpus Uteri	0	1	0	0	0	0	2	0	3	1	0
Other Female Genital	4	2	3	1	1	0	3	0	10	2	5
Prostate	8	3	8	3	1	5	6	5	15	13	16
Other Male Genital	1	0	0	0	0	0	0	0	0	0	0
Urinary Bladder	3	1	0	0	0	1	5	2	7	1	3
Kidney & Other Urinary	4	3	0	1	0	1	4	1	10	0	4
Eye, Brain & Other Nervous System	1	3	2	2	0	1	2	2	1	0	5
Lymph Nodes	1	3	2	2	0	2	5	3	15	8	6
Leukemia	4	2	2	1	1	0	3	5	15	3	6
All Others	10	8	2	2	1	2	6	6	21	1	24
Total Cancer Deaths	94	63	43	29	20	38	135	69	270	51	198

Note: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59).

(Table continued on next page)



**Table 22. Number of Cancer Deaths by Site Group and County of Residence (Continued)**

<b>Primary Site</b>	<b>Lafayette</b>	<b>Langlade</b>	<b>Lincoln</b>	<b>Manitowoc</b>	<b>Marathon</b>	<b>Marinette</b>	<b>Marquette</b>	<b>Menominee</b>	<b>Milwaukee</b>	<b>Monroe</b>	<b>Oconto</b>
Mouth and Pharynx	0	0	0	12	0	2	1	0	26	2	2
Stomach	1	2	3	2	10	3	0	0	57	1	3
Colon	8	7	4	15	18	5	4	1	206	7	6
Rectum & Rectosigmoid Junction	1	1	4	2	6	0	0	0	31	1	1
Pancreas	3	3	6	13	10	4	1	1	119	4	5
Other Gastrointestinal Tract	1	2	2	18	17	4	4	0	140	4	9
Trachea, Bronchus & Lung	12	15	19	52	44	31	15	2	568	19	18
Other Respiratory	0	1	1	1	3	3	1	0	31	2	1
Bone & Connective Tissue	0	1	0	2	0	1	1	0	21	0	1
Melanoma of Skin	1	2	1	3	4	1	3	0	27	1	2
Breast	1	0	9	15	21	11	2	0	157	4	5
Cervix Uteri	0	0	0	1	1	0	0	2	18	1	0
Corpus Uteri	0	0	0	1	1	1	0	0	19	0	0
Other Female Genital	0	2	0	5	7	6	3	1	78	2	1
Prostate	3	3	6	19	16	3	2	1	139	6	4
Other Male Genital	0	0	0	0	0	0	0	0	1	0	0
Urinary Bladder	0	0	0	3	8	7	2	0	50	3	0
Kidney & Other Urinary	0	1	4	5	11	3	0	0	51	4	1
Eye, Brain & Other Nervous System	2	1	0	6	3	2	2	0	35	1	2
Lymph Nodes	0	2	0	15	14	7	2	0	95	6	5
Leukemia	4	2	3	11	11	3	4	0	66	4	2
All Others	3	2	4	15	24	8	2	0	232	2	7
<b>Total Cancer Deaths</b>	<b>40</b>	<b>47</b>	<b>66</b>	<b>216</b>	<b>229</b>	<b>105</b>	<b>49</b>	<b>8</b>	<b>2,167</b>	<b>74</b>	<b>75</b>

Note: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59).

(Table continued on next page)

**Table 22. Number of Cancer Deaths by Site Group and County of Residence (Continued)**

<b>Primary Site</b>	<b>Oneida</b>	<b>Outagamie</b>	<b>Ozaukee</b>	<b>Pepin</b>	<b>Pierce</b>	<b>Polk</b>	<b>Portage</b>	<b>Price</b>	<b>Racine</b>	<b>Richland</b>	<b>Rock</b>
Mouth and Pharynx	0	6	2	0	3	1	2	1	6	0	1
Stomach	2	4	5	0	1	3	3	2	12	0	7
Colon	7	14	14	1	7	11	12	4	31	4	22
Rectum & Rectosigmoid Junction	3	7	0	0	0	1	0	1	7	0	6
Pancreas	8	15	4	0	1	2	6	3	20	3	13
Other Gastrointestinal Tract	8	10	6	4	1	7	6	1	28	3	19
Trachea, Bronchus & Lung	35	62	39	2	14	22	20	10	112	3	78
Other Respiratory	0	2	0	1	1	2	0	1	4	1	2
Bone & Connective Tissue	0	2	1	0	0	1	2	0	2	2	2
Melanoma of Skin	1	5	2	0	1	1	0	2	5	0	6
Breast	8	17	17	0	5	7	6	6	23	4	29
Cervix Uteri	0	2	0	0	1	0	1	0	0	0	4
Corpus Uteri	2	1	0	0	0	0	0	0	2	0	1
Other Female Genital	4	8	4	0	1	1	1	0	24	1	19
Prostate	2	16	8	1	5	5	9	1	27	1	18
Other Male Genital	1	0	0	0	0	0	0	0	1	0	0
Urinary Bladder	1	8	5	1	1	3	2	0	8	0	6
Kidney & Other Urinary	3	11	6	1	2	1	4	1	9	1	7
Eye, Brain & Other Nervous System	0	9	3	1	2	0	6	2	5	1	4
Lymph Nodes	5	14	11	2	1	3	6	2	20	1	17
Leukemia	7	15	5	2	2	5	4	1	17	3	14
All Others	4	21	15	2	5	6	8	4	36	2	18
<b>Total Cancer Deaths</b>	<b>101</b>	<b>249</b>	<b>147</b>	<b>18</b>	<b>54</b>	<b>82</b>	<b>98</b>	<b>42</b>	<b>399</b>	<b>30</b>	<b>293</b>

Note: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59).

(Table continued on next page)

**Table 22. Number of Cancer Deaths by Site Group and County of Residence (Continued)**

Primary Site	Rusk	St. Croix	Sauk	Sawyer	Shawano	Sheboygan	Taylor	Trempealeau	Vernon	Vilas	Walworth
Mouth and Pharynx	0	1	3	2	0	3	0	0	2	1	4
Stomach	1	1	1	3	3	5	0	0	2	1	3
Colon	3	9	11	6	11	19	0	6	7	2	20
Rectum & Rectosigmoid Junction	1	0	2	2	3	6	0	0	1	1	6
Pancreas	2	5	10	2	4	13	3	1	11	3	8
Other Gastrointestinal Tract	1	4	8	3	7	18	0	2	4	0	5
Trachea, Bronchus & Lung	8	16	24	14	18	50	10	11	17	21	50
Other Respiratory	0	0	3	1	0	0	0	1	0	1	3
Bone & Connective Tissue	1	1	0	4	0	0	0	0	1	0	0
Melanoma of Skin	0	3	0	0	1	2	0	0	0	1	3
Breast	3	5	7	0	9	15	3	7	4	4	13
Cervix Uteri	1	0	0	1	0	1	0	0	0	0	1
Corpus Uteri	0	1	0	0	0	3	0	1	0	0	0
Other Female Genital	1	2	5	0	5	7	0	2	2	3	4
Prostate	2	7	9	4	13	16	5	4	8	3	15
Other Male Genital	0	0	0	0	0	0	0	0	0	0	2
Urinary Bladder	3	3	4	1	3	5	1	1	1	3	5
Kidney & Other Urinary	2	2	4	2	2	3	1	2	4	2	6
Eye, Brain & Other Nervous System	2	2	3	1	7	11	2	0	1	1	2
Lymph Nodes	3	6	11	2	0	7	2	3	2	1	11
Leukemia	1	4	3	3	2	8	2	5	3	6	12
All Others	3	8	9	7	8	14	4	7	5	5	8
Total Cancer Deaths	38	80	117	58	96	206	33	53	75	59	181

Note: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59).

(Table continued on next page)

**Table 22. Number of Cancer Deaths by Site Group and County of Residence (Continued)**

<b>Primary Site</b>	<b>Washburn</b>	<b>Washington</b>	<b>Waukesha</b>	<b>Waupaca</b>	<b>Waushara</b>	<b>Winnebago</b>	<b>Wood</b>
Mouth and Pharynx	0	0	8	2	0	5	1
Stomach	0	2	12	1	2	4	5
Colon	5	9	34	13	5	17	8
Rectum & Rectosigmoid Junction	1	2	10	2	0	4	2
Pancreas	1	13	37	3	2	14	9
Other Gastrointestinal Tract	4	10	27	10	2	17	5
Trachea, Bronchus & Lung	15	43	127	32	14	80	49
Other Respiratory	1	0	4	4	0	3	1
Bone & Connective Tissue	0	4	5	0	1	3	1
Melanoma of Skin	0	0	8	0	0	2	0
Breast	1	15	67	11	2	21	16
Cervix Uteri	0	2	5	2	1	2	0
Corpus Uteri	0	0	2	1	0	1	0
Other Female Genital	1	12	28	3	4	11	5
Prostate	2	23	40	9	6	28	10
Other Male Genital	0	0	2	0	0	0	0
Urinary Bladder	1	3	15	3	4	2	2
Kidney & Other Urinary	1	4	20	1	1	5	1
Eye, Brain & Other Nervous System	2	3	25	7	0	5	4
Lymph Nodes	1	15	34	6	0	18	9
Leukemia	1	4	20	8	3	11	3
All Others	6	16	54	8	6	30	14
<b>Total Cancer Deaths</b>	<b>43</b>	<b>180</b>	<b>584</b>	<b>126</b>	<b>53</b>	<b>283</b>	<b>145</b>

Note: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59).

**Table 23. Number of Cancer Deaths by Site Group, Age and Sex**

PRIMARY SITE	AGE AND SEX										
	TOTAL	MALES	FEMALES	0-19		20-29		30-39		40-49	
				M	F	M	F	M	F	M	F
Mouth & Pharynx	149	94	55	0	0	0	0	0	0	7	1
Stomach	226	150	76	0	0	1	0	1	1	9	5
Colon	933	460	473	0	1	2	0	6	0	15	15
Rectum & Rectosigmoid Junction	180	95	85	1	0	0	1	3	3	5	5
Pancreas	564	265	299	0	0	0	0	1	1	13	8
Other Gastrointestinal Tract	624	396	228	0	0	0	0	5	1	18	11
Trachea, Bronchus & Lung	2,590	1,535	1,055	0	0	1	2	10	8	54	34
Other Respiratory	104	69	35	0	1	0	2	1	0	2	2
Bone & Connective Tissue	96	47	49	2	4	3	0	2	0	6	6
Melanoma of Skin	150	87	63	0	0	1	1	8	6	15	7
Breast	823	8	815	0	0	0	1	0	31	0	82
Cervix Uteri	69	-	69	-	0	-	1	-	6	-	20
Corpus Uteri	55	-	55	-	0	-	0	-	0	-	2
Other Female Genital	388	-	388	-	0	-	3	-	4	-	27
Prostate	748	748	-	0	-	0	-	0	-	2	-
Other Male Genital	10	10	-	0	-	1	-	1	-	4	-
Urinary Bladder	247	168	79	0	0	0	0	0	1	2	1
Kidney & Other Urinary	276	156	120	0	1	1	1	1	0	16	3
Eye, Brain & Other Nervous System	262	144	118	5	3	3	6	11	4	21	16
Lymph Nodes	525	287	238	2	1	3	3	14	3	21	9
Leukemia	431	236	195	4	10	6	3	5	5	11	6
All Others	991	517	474	3	2	0	3	7	6	24	18
Total Cancer Deaths	10,441	5,472	4,969	17	23	22	27	76	80	245	278

Note: Age groupings vary in this table; childhood cancers (0-19) are followed by 10-year groupings up to age 59. 5-year age groups begin at age 60. "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59). See Technical Notes at the end of this report for the individual sites included in each site group.

(Table continued on next page)

- The distribution of cancer deaths shows the number of deaths increasing for all types of cancer as age increases; 73 percent of cancer deaths were at age 65 or older.
- The proportion of deaths reported for 65-and-older groups was high for prostate cancer (95%) and colon cancer (79%, both sexes). Seventy-three percent of lung cancer deaths also occurred among those age 65 and older.

**Table 23. Number of Cancer Deaths by Site Group, Age and Sex (Continued)**

	AGE AND SEX													
	50-59		60-64		65-69		70-74		75-79		80-84		85+	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Mouth & Pharynx	15	8	9	3	20	7	12	9	10	9	13	7	8	11
Stomach	15	5	19	2	21	6	28	7	16	14	23	16	17	20
Colon	40	29	53	31	60	51	66	53	76	60	58	95	84	138
Rectum & Rectosigmoid Junction	15	6	12	5	13	5	16	7	14	11	9	17	7	25
Pancreas	29	29	36	14	34	29	35	40	49	67	40	37	28	74
Other Gastrointestinal Tract	54	22	47	17	56	26	79	34	57	38	43	30	37	49
Trachea, Bronchus & Lung	177	115	192	113	265	157	316	213	253	186	168	130	99	97
Other Respiratory	18	4	5	4	10	6	13	2	11	4	2	8	7	2
Bone & Connective Tissue	3	6	4	4	8	4	6	5	6	6	5	8	2	6
Melanoma of Skin	16	5	8	1	9	9	3	9	10	9	8	6	9	10
Breast	1	111	0	68	1	84	1	110	3	85	2	113	0	130
Cervix Uteri	-	13	-	2	-	7	-	4	-	4	-	5	-	7
Corpus Uteri	-	3	-	6	-	4	-	7	-	9	-	16	-	8
Other Female Genital	-	49	-	37	-	44	-	55	-	50	-	56	-	63
Prostate	12	-	22	-	67	-	121	-	150	-	178	-	196	-
Other Male Genital	1	-	0	-	2	-	0	-	0	-	0	-	1	-
Urinary Bladder	17	2	12	6	15	7	24	6	28	12	30	17	40	27
Kidney & Other Urinary	34	13	19	11	22	14	22	20	18	23	15	17	8	17
Eye, Brain & Other Nervous System	26	22	18	14	14	13	21	15	14	13	10	7	1	5
Lymph Nodes	33	15	21	19	30	18	42	35	61	36	33	47	27	52
Leukemia	21	10	28	11	29	21	40	24	40	36	27	37	25	32
All Others	56	49	56	29	79	50	83	60	80	87	62	67	67	103
Total Cancer Deaths	583	516	561	397	755	562	928	715	896	759	726	736	663	876

Note: Age groupings vary in this table; childhood cancers (0-19) are followed by 10-year groupings up to age 59. 5-year age groups begin at age 60. "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59). See Technical Notes at the end of this report for the individual sites included in each site group.

**Table 24. Number of Cancer Deaths by Race, Age and Sex**

	AGE GROUP							TOTAL
	0 - 14	15 - 24	25 - 44	45 - 64	65 - 74	75 - 84	85 +	
MALES								
White	13	9	155	1,211	1,593	1,578	651	5,210
African American	0	2	14	82	76	36	7	217
Other	0	0	2	16	14	8	5	45
Total Males	13	11	171	1,309	1,683	1,622	663	5,472
FEMALES								
White	10	15	195	998	1,219	1,464	861	4,762
African American	1	3	12	68	43	26	11	164
Other	1	0	5	13	15	5	4	43
Total Females	12	18	212	1,079	1,277	1,495	876	4,969
Total Cancer Deaths	25	29	383	2,388	2,960	3,117	1,539	10,441

Note: "Total cancer deaths" include all reportable cancer deaths except deaths from nonmelanoma skin cancer (see Technical Notes on page 59).

- The highest number of cancer deaths among African American males and males in the "Other" race group occurred at ages 45-64. Cancer deaths tended to occur at older ages among white males: the highest number of deaths occurred at ages 65-74, followed closely by ages 75-84.
- African American females also had a younger distribution of cancer deaths compared with white females. The highest number of deaths among African American females occurred at ages 45-64, while the highest number among white females occurred at ages 75-84.

**Table 25. Number of Deaths and Average Number of Months Between Diagnosis and Death, by Age at Diagnosis**

PRIMARY SITE/ CAUSE OF DEATH	AGE AT DIAGNOSIS IN YEARS							
	UNDER 65		65 - 74		75 - 84		85 AND OVER	
	Deaths	Months	Deaths	Months	Deaths	Months	Deaths	Months
Mouth & Pharynx	98	43.9	66	35.0	35	34.1	8	-
Stomach	69	13.1	73	15.4	77	9.9	42	6.6
Colon	213	40.3	266	29.0	272	28.1	111	16.7
Rectum & Rectosigmoid Junction	98	37.5	112	38.4	96	32.9	46	19.8
Pancreas	123	7.6	131	8.8	139	5.9	70	4.2
Other Gastrointestinal Tract	150	13.8	168	10.1	137	8.4	50	5.6
Trachea, Bronchus & Lung	757	16.2	854	12.0	575	9.0	128	7.0
Other Respiratory	56	55.6	50	32.8	38	16.2	11	-
Bone & Connective Tissue	49	32.3	24	29.0	24	18.4	8	-
Melanoma of Skin	60	47.6	33	41.8	32	27.6	3	-
Breast	412	69.6	236	67.9	173	43.7	63	26.6
Cervix Uteri	53	52.6	12	-	9	-	10	-
Corpus Uteri	43	60.4	56	55.5	38	19.7	9	-
Other Female Genital	105	36.8	67	31.8	89	17.2	34	16.2
Prostate	140	71.5	272	64.3	285	47.1	118	27.5
Other Male Genital	10	-	4	-	2	-	1	-
Urinary Bladder	58	70.6	92	54.0	91	37.5	47	22.7
Kidney & Other Urinary	82	36.4	63	31.7	69	23.9	29	4.7
Eye, Brain & Other Nervous System	133	24.5	75	14.9	41	6.9	11	-
Lymph Nodes	147	55.0	122	29.2	85	17.3	31	11.4
Leukemia	192	38.2	142	28.8	178	20.1	62	17.8
All Others	155	16.6	150	9.9	146	8.5	81	3.3
Total	3,203	36.5	3,068	29.0	2,631	21.6	973	14.0

Notes: This table includes cancer deaths (listed as the underlying cause of death on the death certificate) that occurred among Wisconsin residents in 1996 and matched a reported cancer diagnosis filed with the Wisconsin Cancer Reporting System since 1978. Each tumor is counted separately for persons with multiple tumors. See Technical Notes on page 61 for the criteria used to determine a match between the incidence and death reports. Months to death based on fewer than 20 cases per age group are omitted because they are subject to large random fluctuations. See Technical Notes at the end of this report for the individual sites included in each major site group.

- The average number of months before death decreased with increasing age at diagnosis: from 36 months for cases diagnosed before age 65, to 14 months for cases diagnosed at ages 85 and older.



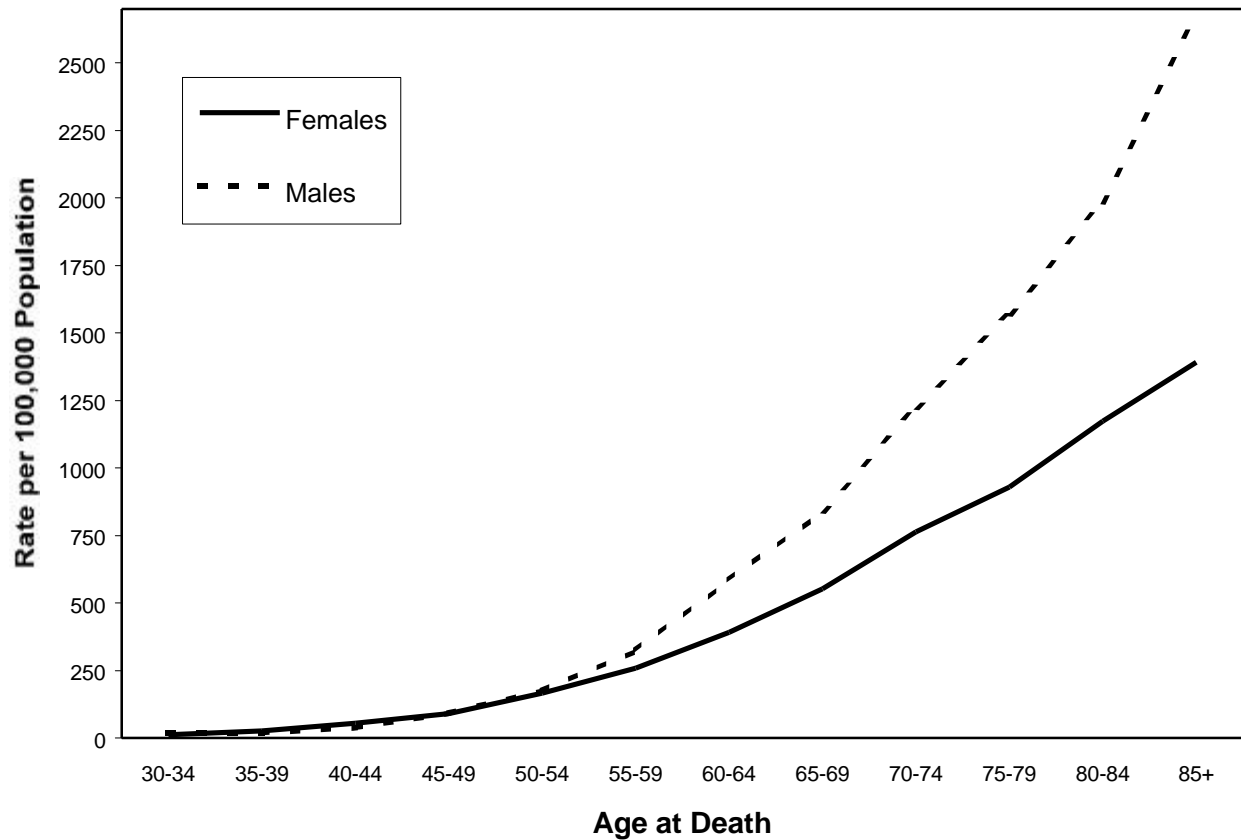
**Table 26. Number of Deaths and Average Number of Months Between Diagnosis and Death, by Stage of Disease at Diagnosis**

PRIMARY SITE/CAUSE OF DEATH	STAGE OF DISEASE							
	IN SITU & LOCAL		REGIONAL		DISTANT		NOT STATED	
	Deaths	Months	Deaths	Months	Deaths	Months	Deaths	Months
Mouth & Pharynx	64	43.2	94	35.0	22	26.8	27	47.3
Stomach	37	22.1	109	12.9	73	5.5	42	10.8
Colon	139	54.6	335	36.7	280	12.6	108	22.0
Rectum & Recto-sigmoid Junction	69	60.1	154	36.5	74	17.2	55	18.3
Pancreas	58	13.1	151	8.2	172	3.9	82	6.5
Other Gastrointestinal Tract	109	15.6	151	12.8	137	5.7	108	7.3
Trachea, Bronchus & Lung	367	21.2	662	14.3	972	7.1	313	14.0
Other Respiratory	64	46.9	52	30.6	12	-	27	26.8
Bone & Connective Tissue	35	36.2	21	33.9	25	9.7	24	22.5
Melanoma of Skin	69	45.4	19	-	20	20.4	20	45.7
Breast	268	73.6	384	64.6	144	31.6	88	55.0
Cervix Uteri	31	59.5	29	41.4	12	-	12	-
Corpus Uteri	60	71.7	32	38.7	33	10.5	21	31.8
Other Female Genital	29	50.9	71	22.2	152	23.9	43	32.1
Prostate	340	67.2	122	60.3	215	38.5	138	41.4
Other Male Genital	6	-	7	-	3	-	1	-
Urinary Bladder	173	60.3	54	32.0	27	11.1	34	31.7
Kidney & Other Urinary	56	47.8	63	30.4	98	10.6	26	43.9
Eye, Brain & Other Nervous System	174	17.1	40	17.3	6	-	40	22.8
Lymph Nodes	53	35.9	58	41.9	150	30.8	124	36.5
Leukemia	2	-	4	-	112	27.3	456	28.2
All Others	27	43.6	28	12.5	198	8.5	279	8.4
Total	2,230	46.1	2,640	31.0	2,937	14.6	2,068	23.7

Notes: This table includes those cancer deaths (listed as the underlying cause of death on the death certificate) that occurred among Wisconsin residents in 1996 and matched a reported cancer diagnosis filed with the Wisconsin Cancer Reporting System since 1978. Each tumor is counted separately for persons with multiple tumors. See Technical Notes on page 61 for the criteria used to determine a match between incidence and death reports. Months based on fewer than 20 cases per extent are omitted because they are subject to large random fluctuations. See Technical Notes at the end of this report for the individual sites included in each major site group.

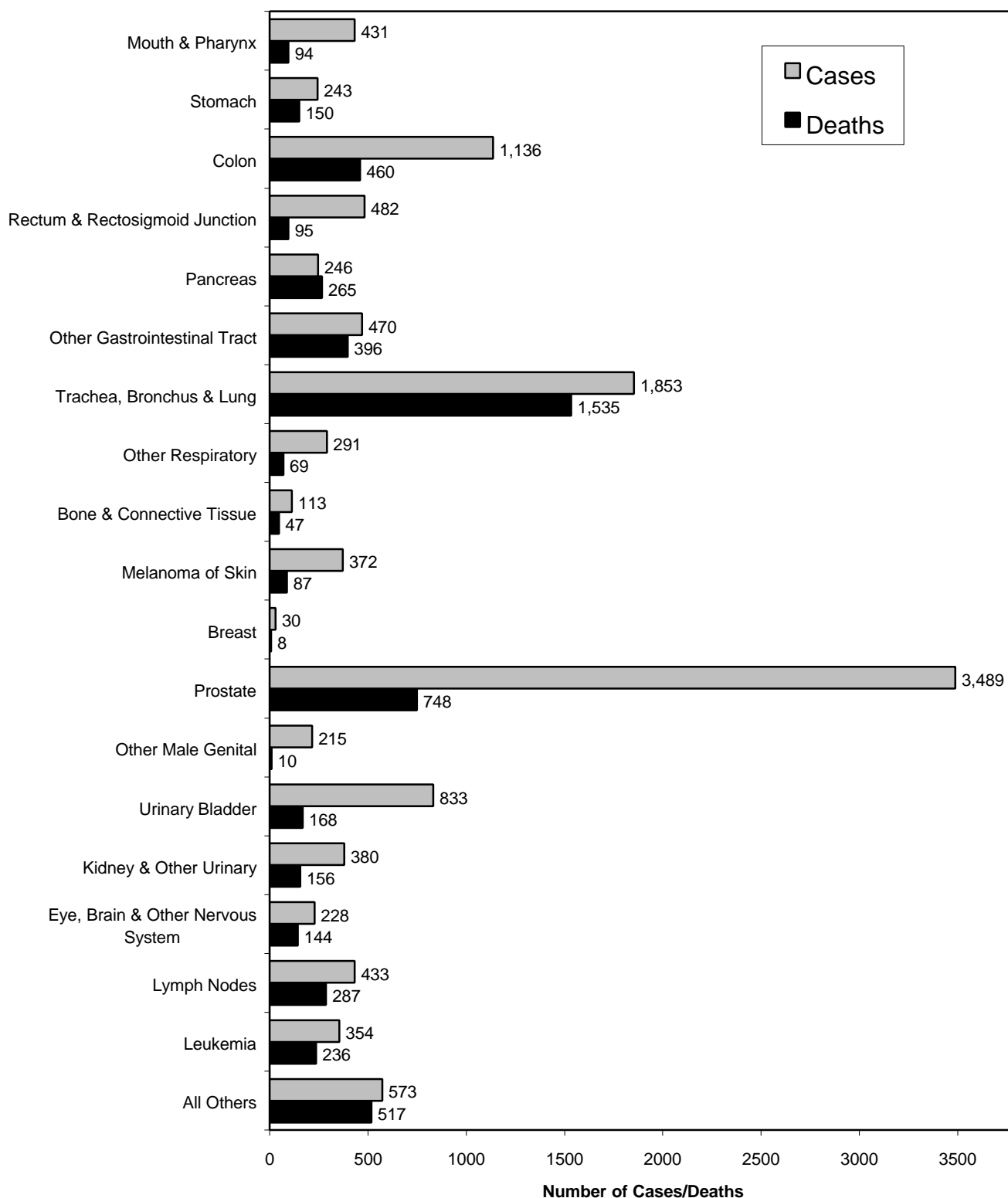
- The average number of months before death decreased with advancing stage of disease at diagnosis: 46 months for cancers diagnosed at local stage, 31 months for cancers diagnosed at the regional stage and 15 months for distant-staged cancers.

**Figure 2. Age-Specific Cancer Mortality Rates, by Sex**



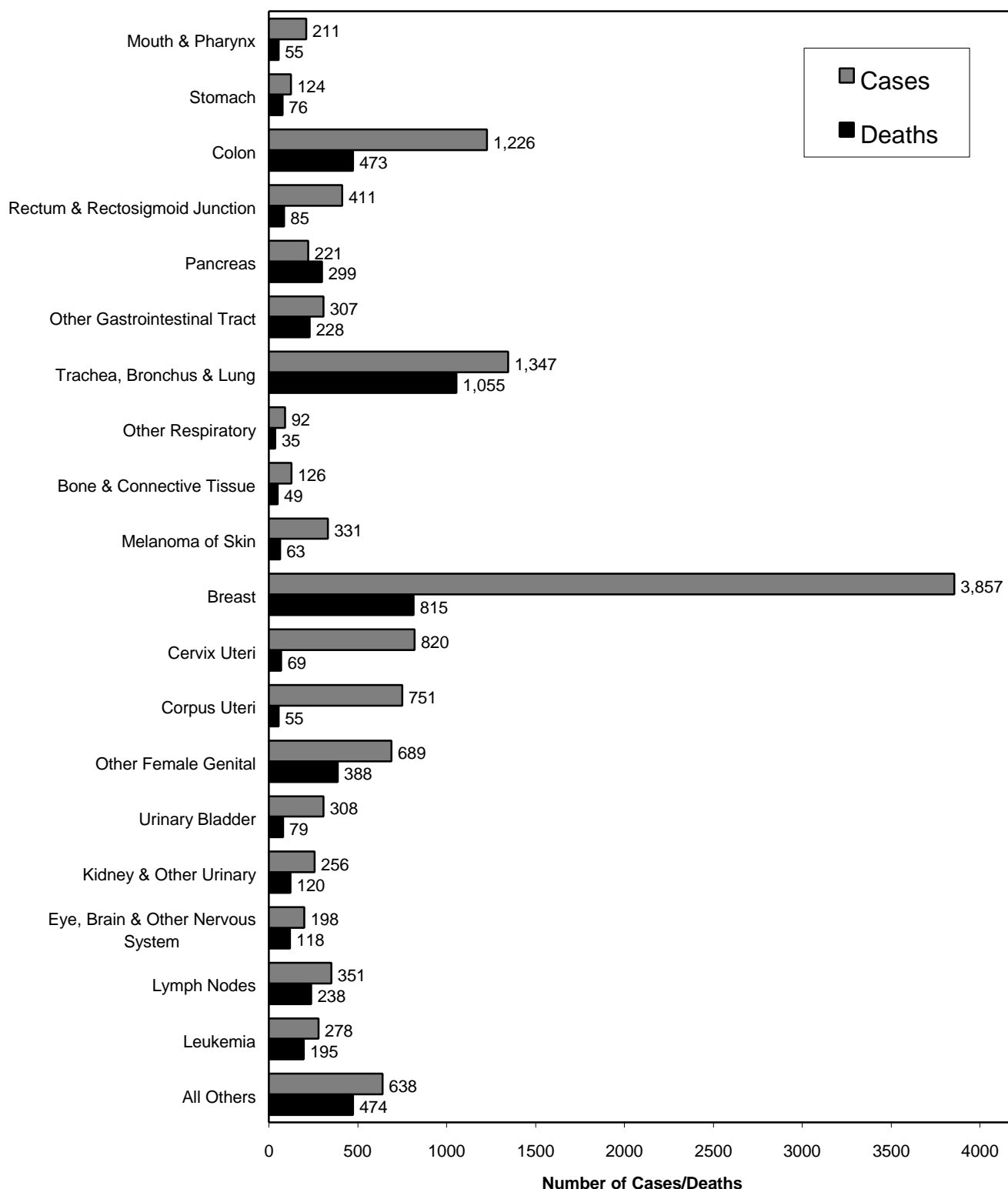
- The cancer mortality rate rises steadily with age for both males and females. The male mortality rate is higher than the female mortality rate after age 50.

**Figure 3. Cancer Cases and Deaths by Site: Males**



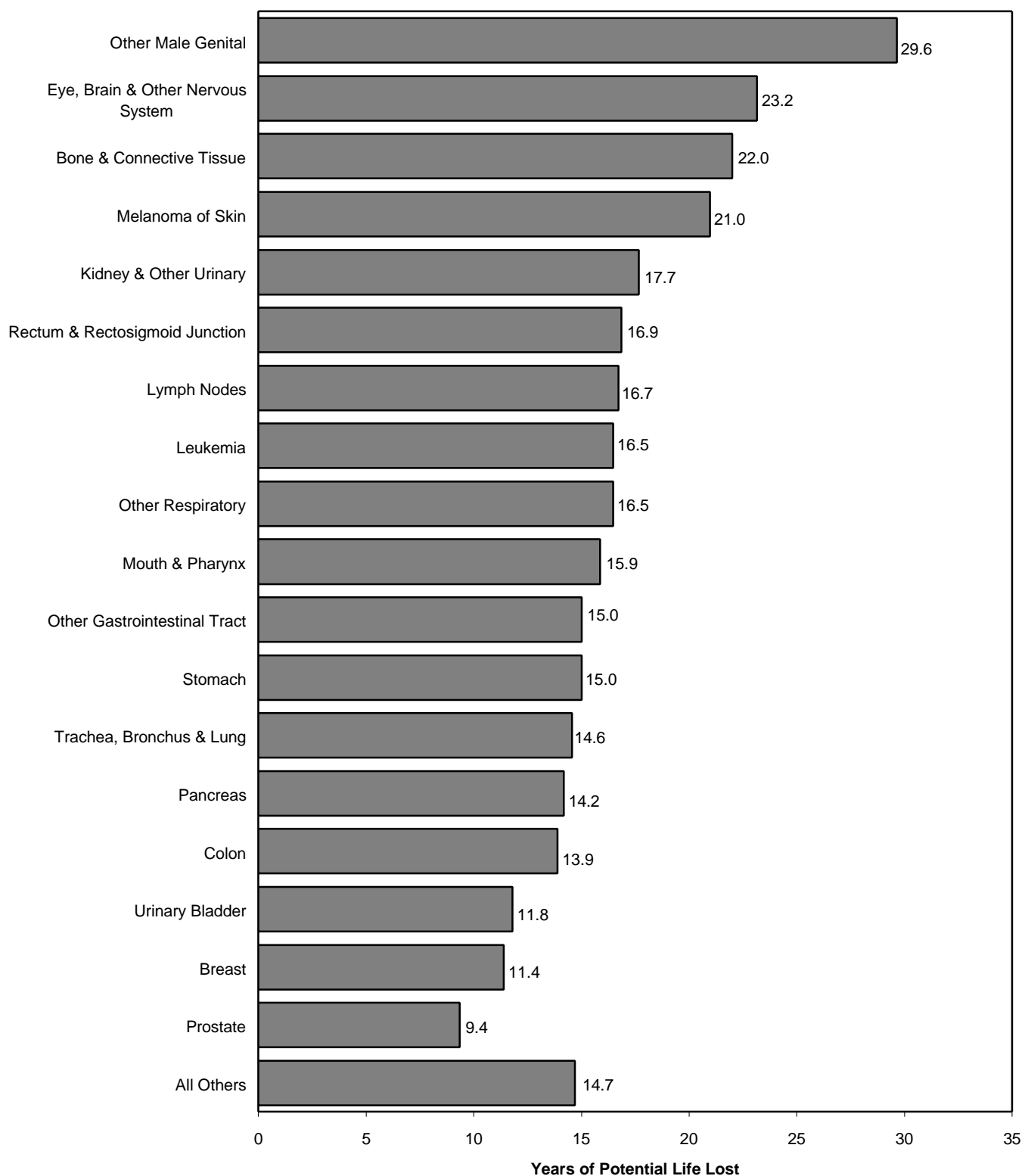
Source: Wisconsin Cancer Reporting System and the 1996 Wisconsin resident death file, Vital Records and Statistics

Figure 4. Cancer Cases and Deaths by Site: Females



Source: Wisconsin Cancer Reporting System and the 1996 Wisconsin resident death file, Vital Records and Statistics

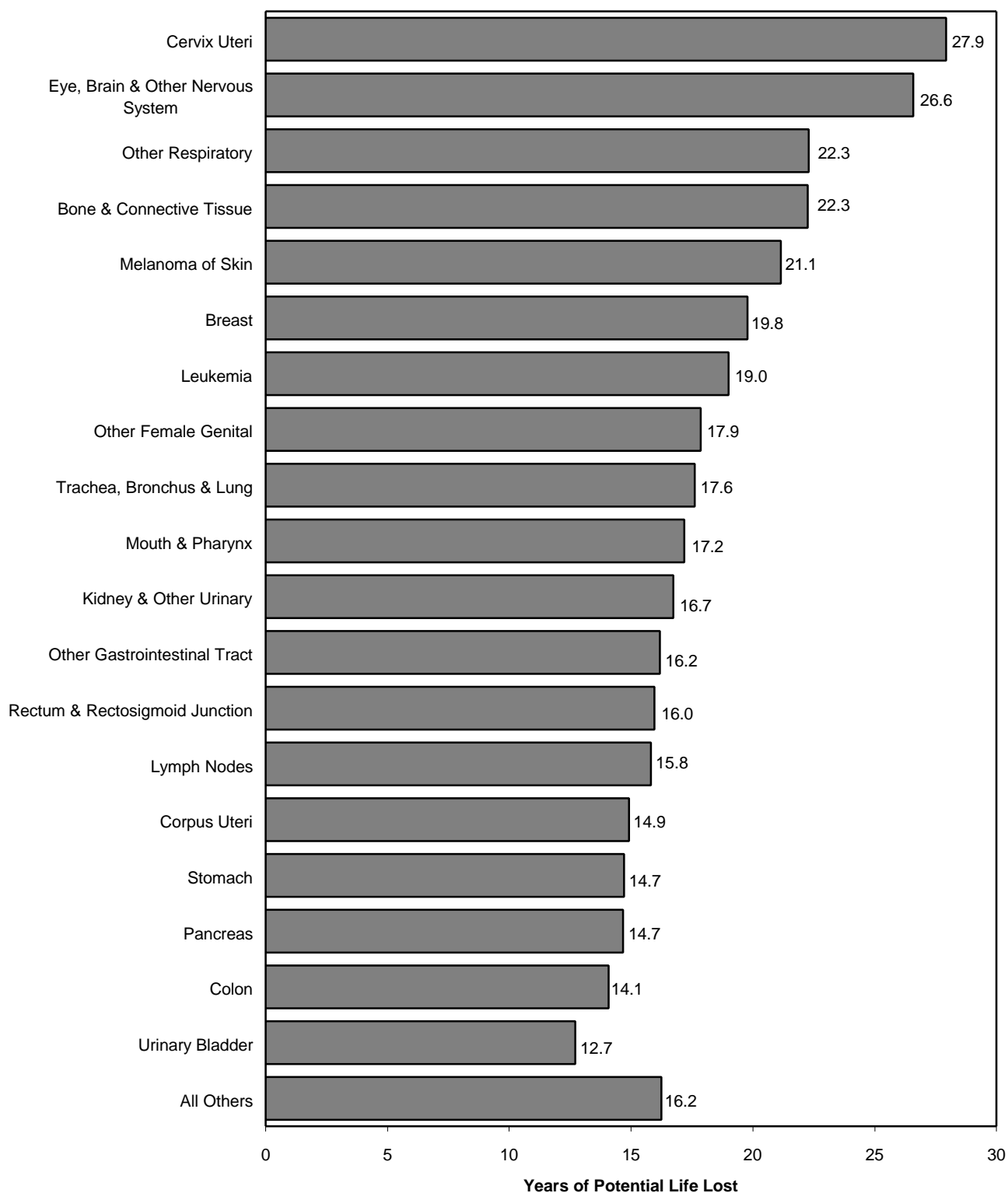
**Figure 5. Average Years of Potential Life Lost Due to Cancer Mortality by Site Group: Males**



Source: 1996 Wisconsin resident death file, Vital Records and Statistics.

Note: See page 62 for information on calculating the average years of potential life lost.

**Figure 6. Average Years of Potential Life Lost Due to Cancer Mortality by Site Group:  
Females**



Source: 1996 Wisconsin resident death file, Vital Records and Statistics.

Note: See page 62 for information on calculating the average years of potential life lost.



## Technical Notes

### The Cancer Reporting Statute (s. 255.04)

- (1) Any hospital, as defined under s. 50.33(2), any physician and any laboratory certified under 42 USC 263a shall report information concerning any person diagnosed as having cancer or a precancerous condition to the department as prescribed by the department under sub. (2).
- (2) The department shall prescribe:
  - (a) The form on which the report under sub. (1) shall be submitted.
  - (b) The time schedule under which the report under sub. (1) shall be submitted.
  - (c) The types of cancer and precancerous conditions to be reported under sub. (1).
- (3) Any information reported to the department under sub. (1) or (5) which could identify any individual who is the subject of the report or the physician submitting the report shall be confidential and may not be disclosed by the department except to the following:
  - (a) A central tumor registry in another state if the individual who is the subject of the information resides in the other state.
  - (b) A national tumor registry recognized by the department.
- (4) The report of information under sub. (1) may not be construed as a violation of any person's responsibility for maintaining the confidentiality of patient health care records, as defined under s. 146.81(4).
- (5) The department may, to the extent feasible, collect information related to the occupation of cancer patients in order to fulfill the purpose of s. 250.04 (3)(b)4.

### Administrative Rules: Hospital Cancer Reporting (HSS 124.05 (h))

Every hospital shall report to the department all malignant neoplasms that are diagnosed by the hospital and all malignant neoplasms diagnosed elsewhere if the individual is subsequently admitted to the hospital. The report of each malignant neoplasm shall be made on a form prescribed or approved by the department and shall be submitted to the department within 6 months after the diagnosis is made or within 6 months after the individual's first admission to the hospital if the neoplasm is diagnosed elsewhere, as appropriate. In this paragraph, "malignant neoplasm" means an in situ or invasive tumor of the human body, but does not include a squamous cell carcinoma or basal cell carcinoma arising in the skin.



**Neoplasm Record/Report: Required Data for 1996 Diagnoses*****Patient Demographics***

Last Name	Zip Code
First Name	County of Residence
Middle Name	Race
Maiden Name	Ethnicity
Sex	Occupation/Industry
Street Address	Date of Birth
City	Marital Status
State	Social Security Number

***Administrative Fields***

Medical Record Number	Facility Referred From
Tumor Registry Accession Number (if applicable)	Facility Referred To
CRS Facility Code	Class of Case
Follow-up Physician Number	

***Tumor Characteristics***

Sequence Number	Cell Type
Date of First Contact	Grade
Date of Discharge	Tumor Size
Date of Diagnosis	Metastatic Sites (to date)
Primary Site/Subsite	Stage of Disease (at diagnosis)
Laterality	Diagnostic Confirmation

***Treatment Fields***

Cancer Directed Treatment  
Non-Definitive Treatment  
Treatment Date

- The above data are required on each case submitted to the Cancer Reporting System. Data can be submitted by filling out the Neoplasm/Record report form provided by WCRS or by submitting electronic data using a WCRS-approved record layout format.

### Cancer Reporting System Operating Procedures

**Data Collection.** The Wisconsin Cancer Reporting System receives hospital information from medical records departments or tumor registries. Each records department or registry has two major responsibilities in the flow of information. The first is case finding. All of the hospital's newly diagnosed and/or admitted cancer cases need to be identified. As part of this identification, medical records as well as radiology, pathology, outpatient clinic and autopsy reports need to be examined to assure complete reporting. The second responsibility of the registry or records department is completion of the one-page Neoplasm Report Form, which contains demographic, diagnostic and treatment questions. Hospitals with computerized medical records or tumor registries send reports to WCRS on diskettes.

Physicians and freestanding clinics report (1) all cancer cases they treat, and (2) those cases they diagnose if they are not referred to a Wisconsin hospital for treatment within two months of the diagnosis (this accounted for 2,098 cases in 1996 that were not reported by any other source). Reports for Wisconsin residents receiving care in Iowa, Illinois, Michigan, California, Indiana, Missouri, Texas, Mississippi, Colorado and Kentucky, Florida, Massachusetts, Arkansas, West Virginia, Washington and Wyoming are provided by the central registries for those states. Minnesota hospitals with substantial numbers of Wisconsin resident cancer patients report Wisconsin cases directly to the Cancer Reporting System.

Finally, WCRS matches its records to the Wisconsin resident death file to add mortality information for persons who have previously been reported to the WCRS. From that match, WCRS identifies cases where cancer is indicated on the death certificate but no report exists in the registry. For those cases, WCRS queries the medical source listed on the death certificate (the hospital, out-of-state registry or physician who certified the death) to provide information about the cancer case that was not previously reported to WCRS.

**Reportable Cases.** All primary malignant neoplasms are reportable except basal cell and squamous cell carcinoma of the skin. Benign tumors, premalignant conditions and diseases secondary to the neoplastic process are not reportable.

The 1996 incidence tables are based on Wisconsin resident cases of reportable cancer first diagnosed during 1996 and reported to the Cancer Reporting System by May 1998. This report includes cases reported by Wisconsin hospitals, cooperating out-of-state registries, freestanding clinics and physicians who treat cancer, participating Minnesota facilities, and physicians and other health care personnel who responded to the death certificate confirmation survey. **Cancer Incidence and Mortality, 1996** includes 280 cases originally diagnosed during 1996 that were found through the death certificate confirmation process. Data supplied by Minnesota facilities and reports from other out-of-state registries accounted for approximately two percent of the cases reported.

**Data Quality.** WCRS staff routinely edit cancer reports for completeness and logical consistency, and make periodic checks for consistency among multiple reports received for the same case. If a problem is found, queries are returned to the reporting agent and corrections are made in the records. For cases for which more than one report is on file, all records are evaluated to determine the best codes for histological description of tumor type, extent of disease at diagnosis, method of diagnostic confirmation, types of definitive therapy and race of patient.

**Completeness of Data.** Cancer Reporting System records include most, but not all, reportable cancer cases involving Wisconsin residents. The 1996 data are estimated to be 95 percent complete (meeting national standards). This percentage should increase over the next five years due to statewide training sessions offered by WCRS to the reporting facilities; training focuses on decreasing the occurrence of incomplete casefinding, periodic late reporting, and noncompliance.

WCRS submitted 1995 incidence data to the North American Association of Central Cancer Registries (NAACCR) in late 1997 to be tested on timeliness and data quality (per federal standards). WCRS recently received the news that it was given the NAACCR Gold Standard for quality, completeness and timeliness of our 1995 data. This was the first year that NAACCR recognized central registries for achieving these standards. This will be an ongoing recognition of central cancer registry data quality. WCRS plans to submit 1996 data once it is requested by NAACCR.

**Case Determination.** When there are apparently multiple neoplasms of the same primary site in one patient, simultaneously or over a period of time, the following rules are used to determine whether more than one independent primary neoplasm exists:

- 1) A single lesion with multiple histologic types is considered a single primary.
- 2) An independent primary cancer of the same histologic type as one diagnosed in the same site more than one year earlier is considered a separate primary, unless the physician states that it is a recurrence of the earlier primary.
- 3) Simultaneous multiple lesions of the same histologic type within the same primary site are considered a single primary.
- 4) Multiple lesions of different histologic types within a single site, whether occurring simultaneously or at different times, are considered separate primaries.
- 5) Each side of a paired organ is considered a separate site with the following three exceptions: simultaneous ovarian tumors, simultaneous Wilm's tumors (of the kidney) and simultaneous retinoblastomas (of the eye). These exceptions are coded as bilateral tumors of the paired organ (involvement of the tumor in both sides of a paired organ). Aside from the above exceptions, lesions in both sides of a paired organ are considered separate tumors whether occurring simultaneously or at different times unless a physician determines one side is metastatic from the other or the tumor is bilateral.

Incident tumors are classified according to the **International Classification of Diseases for Oncology, Second Edition**. WCRS annual reports began using this edition with **Cancer in Wisconsin, 1992**. For code groupings used in the tables, see "Coding of Reported Cases: ICD-O-2 Site Codes" and "Coding of Reported Cases: ICD-O Cell Type Codes" on pages 64-67. Tumor codes in the mortality section are classified using the **International Classification of Diseases, 1975 Revision**. Throughout this report, site groupings are listed in ICD-9 sequence. Specific ICD-9 codes for the respective site groups are listed on page 68.

While the ICD-O-2 assigns both a primary site code *and* a cell type code to every tumor, ICD-9 codes reflect either site *or* cell type. The ICD-9 has two skin tumor classifications, one for melanomas of the skin and one for all other skin tumors combined. Basal cell and squamous cell carcinoma of the skin, which are not reportable to the Cancer Reporting System, make up the majority of these “other” skin tumors. Since the ICD-9 classification does not allow for a distinction between basal cell and squamous cell skin cancers on the one hand, and other nonmelanoma skin cancers on the other, only melanomas are included in the mortality section. Reportable nonmelanoma skin cancers are included in the incidence tables in the site group “All Others.” In 1996, 103 reportable cases of nonmelanoma skin cancer were diagnosed.

### Patient Residence

Tables 5-8 are based on patient residence at the time of diagnosis. Tables 20-22 are based on patient residence at the time of death. The Cancer Reporting System collects postal zip code and county of residence for cancer cases rather than minor civil division of residence (village, town or city). For Table 8, zip codes and county boundaries are used to approximate city of residence. Information about the boundaries used to define city of residence is available upon request.

Two factors should be considered in interpreting the patient residence tabulations. The first is the problem of “small numbers.” Many counties have a very small number of new cancer diagnoses or deaths in a year, resulting in site-specific frequencies in the single digits. Such small numbers easily double or triple (or decrease by equivalent amounts) from year to year. When groups of related counties or primary sites are combined, the counts become more stable. Even at the statewide level, however, some random fluctuation is expected.

Second, reporting completeness may vary by region. The most variations occur with out-of-state diagnosis and treatment of patients who live in the sparsely-populated counties along the Wisconsin/Minnesota border and are seen by Minnesota hospitals. The inclusion of reports from nearby Minnesota hospitals, starting in 1992, reduced this problem. While two percent of all 1996 cases were reported by Minnesota facilities, the effect in the border counties is quite large. The contribution of Minnesota reports to county incidence is as follows: Douglas (89%), Polk (43%), Burnett (41%), Pierce (39%), Bayfield (36%), Sawyer (34%), Washburn (29%), Ashland (28%), St. Croix (25%), Iron (24%), Buffalo (14%), Pepin (13%) and Barron (4%). Also, a lag in reporting by an individual hospital can result in local under-reporting of cases, but the effect on regional totals is usually minimal.

### Patient Race

Tables 3, 4, 10, 18, 19 and 24 present cancer information by race. Reporting of racial and ethnic data is nearly complete on death certificates. However, differences among facilities in recording patient race and ethnicity lead to a large number of “other and unknown” codes for case reports. These differences include the method of collection and the categories used for race and ethnicity. Extensive training and expanded races codes (implemented with 1995 diagnoses) have helped to decrease the number of reports with unknown race. The number of reports with unknown race has decreased more

than two-fold, from 518 in 1994 (over 2 percent of total reports) to 218 in 1996 (less than 1 percent of total reports).

### Stage of Disease

The stage of disease is the extent to which the cancer has spread from the site of origin at the time of diagnosis. See pages 3 and 4 for the specific definitions by stage.

### Type of Diagnostic Confirmation

The type of diagnostic confirmation reported indicates the method used to provide the most accurate evidence for the diagnosis of cancer. Microscopic confirmation is required to identify cell type, the most sensitive measure of the *type* of cancer. The following definitions and examples are used in coding diagnostic confirmation.

*Positive Histology* - Microscopic diagnosis based upon specimen from a biopsy or frozen section of tissue.

*Positive Cytology or Blood Confirmation* - Diagnosis based upon microscopic examination of cells (as opposed to tissue).

*Positive Microscopic Confirmation, Not Otherwise Specified* - Microscopic diagnosis with the method unspecified.

*Laboratory Test/Marker Study* - Clinical diagnosis based on a laboratory test or a tumor marker study.

*Surgery Observation Without Microscopic Confirmation* - Diagnosis made on the basis of visualization or palpation during surgery.

*Imaging* - Includes chest films, bone series, mammograms, angiograms, upper GI series, etc.

*Other Clinical Methods* - Diagnosis based on medical history, physical examination and other clinical methods not mentioned above.

*Autopsy* - Reported when the cancer is first discovered or confirmed upon autopsy. An autopsy may involve microscopic examination of tissues or cells.

### Treatment Modality

Cancer patients may receive definitive therapy (directed toward reduction or elimination of cancer cells) or nondefinitive therapy (directed toward better functioning or improved patient comfort but not affecting the growth of cancer cells). Definitive therapy may be administered through one or more treatment modalities.

The following is tabulated as "surgical treatment":

*Surgery* - An operative procedure performed to remove cancer tissue, even if the cancer tissue is known not to be entirely removed. A biopsy performed to identify the cell type of the tumor is surgical treatment only if it removes the entire tumor (excisional biopsy).

The following are tabulated as "nonsurgical treatment":

*Chemotherapy* - Use of chemicals and drugs to destroy cancer cells and tissue.

*Radiation* - Use of external beams or internal radioactive implants independently or before, during or after surgery to kill tumor cells.

*Hormone Therapy* - Administration of hormones to stop the growth of cancer cells, often given in combination with chemotherapy.

*Endocrine Surgery* - Removal of an endocrine gland to stop growth of a cancer in another organ, when the hormonal product of the endocrine gland is implicated in the growth of the tumor.

*Immunotherapy* - Stimulation of the body's natural mechanisms for biochemically attacking foreign cells and substances.

*Other* - Any generally accepted or experimental cancer-directed treatment modality not listed above.

The Cancer Reporting System collects information only about "facility-specific" treatment (treatment *performed* by the reporting facility). Due to the Cancer Reporting System's wide base of reporting facilities and the guidelines for reporting, most treatments do get reported, even if not all are performed at the same facility (many patients receive treatment for their cancer from different facilities).

Consequently, many reports may be received by the Cancer Reporting System for the same tumor. Data in Tables 14-16 are compiled from the cumulative reports for cases diagnosed in 1996 and reported by May 1998 and, consequently, represent an approximation of "first course" (planned) treatment. Treatment data may also include subsequent treatments from recurrence of the tumor.

### **Incidence/Death Case Matching**

The underlying cause of death is "the disease or injury which initiated the chain of morbid events leading directly to death or the circumstances of the accident or violence that produced the fatal injury."

In the mortality tables in this publication, the underlying cause of death is a reportable cancer.

Tables 25 and 26 are derived from incidence records updated with death information. Death is presumed to be caused by a given reported tumor under the following circumstances: when the ICD-O site and cell type codes and the ICD-9 underlying cause of death code agree exactly in designation of primary site or cell type; when the ICD-9 code is a broad one which subsumes the ICD-O code; when the ICD-O code subsumes the cause of death code; or when the two designate adjacent organs. If more than one primary tumor for the same person fits the ICD-9 designation, the tumor which fits best is assumed to be the tumor which caused death.

### Years of Life Lost

For an individual cancer patient who dies as a result of cancer, the “years of life lost” is the difference between that individual's age at death and the expected age at death for a person of the same sex having reached the same age. The average years of life lost by sex and primary site group is the sum, respectively, of years lost by all individuals of each sex who died due to cancer of each primary site, divided by the actual number of deaths for that sex and primary site. The expected age at death for **Cancer Incidence and Mortality, 1996** is calculated from Wisconsin life tables for 1993-95 (prepared by the Bureau of Health Information). Life tables used to calculate potential average years of life lost for past **Cancer in Wisconsin** reports have varied, and documentation for each publication should be consulted before comparing data between years.

### Comparing Cancer Data

**Rates.** Crude rates, or overall rates, are the total number of newly diagnosed cancer cases or cancer deaths per 100,000 persons in the total population. Crude rates are useful for evaluating the level of resources needed to treat cancer. However, when comparing rates over time or across different populations, crude rates can be misleading because they do not account for differences in the age distributions of the various populations. Cancer is age-related (increasing markedly with age), so the comparison of crude rates of cancer can be especially misleading. Crude rates are not reported in any of the **Cancer Incidence and Mortality** tables. Both crude and age-specific rates can be calculated from the population tables on pages 69 and 70. The age-specific rates in Figures 1 and 2 are the number of events per 100,000 persons in each five-year age range.

Age-adjusted rates take into account the diverse age distributions between populations. Valid comparisons between age-adjusted rates can be made, provided the same standard population and age groups have been used in the calculation of the rates. The age-adjusted rates for this report were produced using the direct method of adjustment. With this method, the population is first divided into reasonably homogeneous age ranges. The age-specific rate is calculated for each age range, and each age-specific rate is weighted by multiplying it by the proportion of the 1970 United States standard population in the respective age group. The age-adjusted rate is the sum of the weighted age-specific rates.

All age-adjusted rates in **Cancer Incidence and Mortality, 1996** were calculated using five-year age intervals. The methodology used to calculate age-adjusted rates for past **Cancer in Wisconsin** reports has varied, and documentation for each publication should be consulted before comparing published rates.

**Stage of disease.** Readers are cautioned when comparing *in situ* cervical cancer data over a wide range of years because of technological changes in cytologic and pathologic classifications of pre-invasive cervical cancers. In particular, classification systems formerly distinguished between noninvasive malignant lesions and noninvasive pre-malignant or benign lesions; these categories have been combined in newer systems. The effect on the data depends on the use of terminology by

cytologists and pathologists. The short-term effects are minimal. These changes have not affected reporting of *in situ* cancers of other sites.

**Case coverage.** Due to the increase in reporting sources in recent years, readers are reminded to be cautious about comparisons between 1996 data that reflect the contribution of newer reporting sources and data for previous years reported in earlier publications.

**DHFS Regions.** As of July 1, 1996, new Department of Health and Family Services Regions were established (see map on page 71). Comparisons with regional data in publications prior to the 1994 report may be affected.

### Supplemental Data Sources

Mortality data were obtained from the 1996 Wisconsin resident death file. The mortality tables are based on deaths that occurred in 1996 for which the underlying cause of death was a reportable cancer. Certificates for out-of-state deaths of Wisconsin residents were provided by the states where the deaths occurred. Months between diagnosis and death were calculated from the date of death shown on the death certificate and the date of diagnosis from the case reports.

Wisconsin population estimates were produced by the Bureau of Health Information. BHI compiles its estimates by reconciling those from the Department of Administration, Demographic Services, against the mid-year age and sex proportional distribution from the Population Estimates Branch of the Bureau of the Census to produce mid-year, county-level and state-level age-by-sex estimates. The population estimates used in this report provide the best data known at the statewide level and represent good estimates at the regional level. Because population calculations have been based on different methodologies from year to year, age-adjusted rates based on these estimates are not strictly comparable to those from previous years, although in most cases the results will be close.



CODING OF REPORTED CASES  
ICD-O-2 Site Codes (1990 Code Version)

Page 1 of 3

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PRIMARY SITE NAME	Major Site Group	Site Group	Individual Site
Lip .....			C00
Tongue .....			C01 - C02
Major Salivary Glands .....			C07 - C08
Gum .....			C03
Floor of Mouth.....			C04
Other & Unspecified Parts of Mouth .....			C05 - C06
Oropharynx .....			C09 - C10
Nasopharynx .....			C11
Hypopharynx.....			C12 - C13
Other Sites in Lip, Oral Cavity, & Pharynx.....			C14
Mouth and Pharynx .....	C00 - C14		
Esophagus.....			C15
Stomach .....		C16.....	C16
Small Intestine .....			C17
Colon .....		C18.....	C18
Rectum, Rectosigmoid Junction, & Anus .....		C19 - C21 .....	C19 - C21
Colorectal .....	C18 - C21		
Liver & Intrahepatic Bile Ducts.....			C22
Gallbladder & Extrahepatic Bile Ducts.....			C23 - C24
Pancreas .....		C25 .....	C25
Retroperitoneum & Peritoneum .....			C48
Other Within Digestive Organs & Peritoneum .....			C26
Other Gastrointestinal Tract .....		C15, C17, C22 - C24 .....	
.....		C26, C48	
Other Gastrointestinal Tract .....	C15 - C17		
.....	C22 - C26, C48		
Nasal Cavities & Sinuses, Internal Ear .....			C30 - C31
Larynx .....			C32
Trachea, Bronchus, & Lung .....	C33 - C34 .....	C33 - C34	
Pleura .....			C38*
Thymus, Heart, & Mediastinum .....			C37 - C38*
Other Respiratory & Intrathoracic Sites .....			C39
Other Respiratory.. ..		C30 - C32	
.....		C37 - C39	
Respiratory .....	C30 - C39		

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\*Pleura sites are coded C38.4; heart and mediastinum sites are identified by the other C38.x codes

CODING OF REPORTED CASES  
ICD-O-2 Site Codes (1990 Code Version)

Page 2 of 3

PRIMARY SITE NAME	Major Site Group	Site Group	Individual Site
Hematopoietic & Reticuloendothelial .....			C42
Systems, Except Leukemia .....			
Bone, Joints, & Articular Cartilage.....			C40 - C41
Connective, Subcutaneous, Other Soft Tissue .....			C49
Bone & Connective Tissue ... ..		C40 - C41	
.....		C49	
Melanoma of Skin. ....			Site code C44 if also
.....			Cell Type Code 872 - 879
Breast .....	C50	C50	C50
Uterus, NOS .....			C55
Cervix Uteri.....		C53	C53
Placenta .....			C58
Corpus Uteri .....		C54	C54
Ovary, Fallopian Tube, & Broad Ligament .....			C56 - C57*
Other & Unspecified Female Genital Organs.....			C51 - C52, C57*
Other Female Genital.....		C51 - C52	
.....		C55 - C58	
Female Genital .....		C51 - C58	
Prostate .....		C61	C61
Testis .....			C62
Penis & Other Male Genital Organs .....			C60, C63
Other Male Genital .....			C60, C62 - C63
Male Genital .....		C60 - C63	
Urinary Bladder .....		C67	C67
Kidney & Other Urinary Organs.....		C64 - C66, C68	C64 - C66, C68
Urinary Tract .....		C64 - C68	
Eye & Lacrimal Gland.....			C69
Brain .....			C71
Other & Unspecified Parts of Central Nervous System .....			C70, C72
Eye, Brain & Other Central Nervous System .....		C69 - C72	
Thyroid Gland.....			C73
Other Endocrine Glands .....			C74 - C75

\*Broad ligament and ovary sites are coded C57.0 and C57.1, respectively; "other and unspecified female genital" sites are the remaining C57.x codes

CODING OF REPORTED CASES  
ICD-O-2 Site Codes (1990 Code Version)

Page 3 of 3

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PRIMARY SITE NAME	Major Site Group	Site Group	Individual Site
Lymph Nodes.....		C77	C77, Except Cell Type Code 965 - 966
Hodgkin's Disease .			Cell Type Code 965 - 966
Lymphoid Leukemia.....			Cell Type Code 982
Myeloid Leukemia .....			Cell Type Code 986
Other Leukemia .....			Cell Type Code 980, 981 983 - 985, 987 - 994
Leukemia.....			Cell Type Code 980 - 994
Leukemia & Lymph Nodes...			Cell Type Code 980 - 994 plus Site Code C77
Other & Ill-defined Sites (Includes Reportable Nonmelanoma Skin Sites)			C44, C47, C76
All Other (Includes Reportable .....			C42, C44, C47
Nonmelanoma Skin Sites, Endocrine, .....			C73 - C76
Nonleukemic Hematopoietic &.....			C80
Reticuloendothelial Sites , Peripheral Autonomic Nerves and Ill-Defined and Unknown Sites)			
All Others (Includes Mouth & .....			C00 - C14
Pharynx, Reportable Nonmelanoma.....			C40 - C44, C47
Skin Sites, Endocrine, .....			C49, C69 - C76
Nonleukemic Hematopoietic.....			C80
& Reticuloendothelial Sites, Peripheral Autonomic Nerves, Eye, Brain and Central Nervous System Sites and Ill-Defined and Unknown Sites)			
Unknown Primary Site .....			C80

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Note: Basal and squamous cell carcinoma of skin sites and nonmalignant neoplasms are not reportable. Extra-nodal lymphomas are coded to their respective primary sites rather than to lymph nodes.

CODING OF REPORTED CASES  
ICD-O Cell Type Codes (Encompasses 1976 and 1990 Code Versions)

CELL TYPE GROUP	CODE
Small Cell/Oat Cell Carcinoma .....	804
Squamous Cell Carcinoma .....	807
Transitional Cell Carcinoma.....	812
Papillary Transitional Cell Carcinoma.....	813
Papillary Adenocarcinoma.....	826
Clear, Renal & Granular Cell Adenocarcinoma .....	831-832
Cystadenocarcinoma.....	844-847
Mucinous Adenocarcinoma .....	848
Ductal Adenocarcinoma .....	850
Medullary Adenocarcinoma.....	851
Lobular Adenocarcinoma.....	852
Other Specified Adenocarcinoma.....	815-820, 823-825 827-830, 833-838 840-842, 855
Other Adenocarcinoma.....	849, 853, 854
Adenocarcinoma, NOS .....	814, 821, 822
Carcinoma, Not Otherwise Specified (NOS).....	801-802
Sarcoma, NOS and Osteogenic Sarcoma.....	880, 918, 919
Astrocytoma, NOS .....	940
Glioblastoma Multiforme .....	944
Germ Cell Neoplasms .....	906-909
Hodgkin's Disease .....	965-966
Non-Hodgkin's Lymphoma .....	959-964, 967-970, 975
Lymphoid Leukemia.....	982
Myeloid Leukemia .....	986
Other Leukemia .....	980-981, 983-985 987-994
Plasma Cell Tumors.....	973
Unknown Cell Type .....	800, 999
(Includes "No Microscopic Confirmation")	
All Others .....	803, 805, 808-811 839, 843, 856-879 881-905, 910-917 922-939, 941-943 945-958, 972, 974, 976

CODING OF DEATHS  
ICD-9 Cancer Codes

PRIMARY SITE NAME	Major Site Group	Site Group
Mouth and Pharynx .....		140 - 149
Stomach .....	151	
Colon .....		153
Rectum, Rectosigmoid Junction, & Anus .....		154
Colorectal .....	153, 154	
Pancreas .....	157	
Other Gastro-intestinal Tract .....	150, 152, 155	
.....		156, 158, 159
Other Gastro-intestinal Tract.....	150 - 152	
.....	155 - 159	
Trachea, Bronchus & Lung... ..	162	
Other Respiratory.. ..	160 - 161	
.....		163 - 165
Respiratory .....	160 - 165	
Bone & Connective Tissue ... ..	170, 171	
Melanoma of Skin. ....	172	
Breast .....	174 - 175	174 - 175
Cervix Uteri.....		180
Body of Uterus .....		182
Other Female Genital.....		179, 181
.....		183, 184
Female Genital.....	179 - 184	
Prostate .....		185
Other Male Genital .....		186 - 187
Male Genital.....	185 - 187	
Urinary Bladder ....		188
Kidney, Other, & Unspecified Urinary Organs.....		189
Urinary Tract .....	188 - 189	
Eye, Brain & Other Nervous System.....		190 - 192
Lymphoma .....		200 - 202
Leukemia.....		204 - 208
Lymphoma & Leukemia .....	200 - 202	
.....	204 - 208	
All Others .....		193 - 195, 199, 203
All Others .....	140 - 149, 170 - 172	
.....	190 - 195, 199, 203	

WISCONSIN POPULATION ESTIMATES BY AGE AND SEX  
July 1, 1996

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Age	Male	Female	Total
ALL AGES	2,539,697	2,622,220	5,161,917
UNDER 5	172,555	164,502	337,057
5-9	189,153	180,322	369,475
10-14	204,470	192,815	397,285
15-19	199,748	189,243	388,991
20-24	168,960	163,961	332,921
25-29	175,381	176,298	351,679
30-34	198,728	199,140	397,868
35-39	224,056	219,056	443,112
40-44	208,512	204,681	413,193
45-49	179,251	181,302	360,553
50-54	131,784	134,817	266,601
55-59	107,850	112,589	220,439
60-64	95,587	101,089	196,676
65-69	89,757	101,778	191,535
70-74	75,720	93,759	169,479
75-79	57,030	81,695	138,725
80-84	36,569	62,747	99,316
85+	24,586	62,426	87,012

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WISCONSIN COUNTY POPULATION ESTIMATES  
July 1, 1996

County	Population	County	Population
Adams	17,458	Marinette	42,229
Ashland	16,616	Marquette	13,709
Barron	42,776	Menominee	4,371
Bayfield	14,644	Milwaukee	949,442
Brown	213,934	Monroe	38,415
Buffalo	13,877	Oconto	32,437
Burnett	13,968	Oneida	34,472
Calumet	37,758	Outagamie	152,885
Chippewa	54,317	Ozaukee	79,055
Clark	32,359	Pepin	7,157
Columbia	48,753	Pierce	34,221
Crawford	16,166	Polk	36,906
Dane	397,985	Portage	65,891
Dodge	81,688	Price	16,024
Door	26,482	Racine	185,199
Douglas	42,479	Richland	17,725
Dunn	37,844	Rock	148,922
Eau Claire	89,025	Rusk	15,287
Florence	4,991	St Croix	55,138
Fond du Lac	94,830	Sauk	51,608
Forest	9,129	Sawyer	15,421
Grant	49,534	Shawano	38,447
Green	31,908	Sheboygan	109,655
Green Lake	19,210	Taylor	19,262
Iowa	21,590	Trempealeau	26,083
Iron	6,320	Vernon	26,546
Jackson	17,193	Vilas	19,535
Jefferson	72,493	Walworth	82,211
Juneau	23,300	Washburn	14,703
Kenosha	139,605	Washington	110,040
Kewaunee	19,572	Waukesha	338,817
La Crosse	103,249	Waupaca	49,265
Lafayette	16,220	Waushara	20,684
Langlade	20,451	Winnebago	150,473
Lincoln	28,805	Wood	76,638
Manitowoc	83,336		
Marathon	123,179	STATE TOTAL	5,161,917

## Wisconsin Department of Health and Family Services Regions





**Table A. Number and Age-Adjusted Rate of *Invasive* Cancer Cases by Site Group and Sex**

PRIMARY SITE	MALE		FEMALE		TOTAL	
	Number	Rate	Number	Rate	Number	Rate
Mouth & Pharynx	419	15.8	205	6.3	624	10.7
Stomach	237	8.3	123	3.0	360	5.3
Colon	1,053	37.9	1,171	29.7	2,224	33.4
Rectum & Rectosigmoid Junction	456	16.8	382	10.6	838	13.5
Pancreas	246	9.0	221	6.0	467	7.4
Other Gastrointestinal Tract	458	16.8	305	8.4	763	12.3
Trachea, Bronchus & Lung	1,845	68.4	1,344	41.6	3,189	53.3
Other Respiratory	283	10.7	88	2.8	371	6.5
Bone & Connective Tissue	113	4.3	126	4.2	239	4.2
Melanoma of Skin	274	9.8	244	7.6	518	8.5
Breast	28	1.0	3,317	102.0	3,345	54.8
Cervix Uteri	-	-	213	6.9	213	3.5
Corpus Uteri	-	-	751	24.2	751	12.9
Other Female Genital	-	-	609	18.7	609	10.0
Prostate	3,456	128.7	-	-	3,456	57.5
Other Male Genital	209	7.0	-	-	209	3.4
Urinary Bladder	833	29.9	308	8.2	1,141	17.7
Kidney & Other Urinary	374	13.7	253	7.4	627	10.3
Eye, Brain & Other Nervous System	226	8.2	197	6.5	423	7.3
Lymph Nodes	433	15.9	351	10.5	784	13.1
Leukemia	354	13.1	278	8.4	632	10.5
All Others	568	20.5	637	18.4	1,205	19.1
All Reportable Sites	11,865	436.1	11,123	331.4	22,988	375.2

Notes: This table presents figures for Wisconsin *invasive* cancers, excluding the earliest stage *in situ* cases (exception: *in situ* bladder cancers are included in this table to comply with national standards). Certain publications from the American Cancer Society and the National Cancer Institute's SEER program present national rates for invasive cancers. This table provides invasive cancer incidence rates more comparable to those national reports. The other tables in this report present all cancer cases reported to the CRS (including *in situ*). Rates are per 100,000 residents age-adjusted to the 1970 United States population.

- The incidence rate for all invasive cancers (excluding all *in situ* cases except those of the bladder) was 32 percent higher among males than among females.
- Invasive-only rates are lower than rates that include both invasive and noninvasive cases; this is especially true for the kinds of cancer that are often diagnosed while still in the *in situ* stage. For example, the incidence rate for invasive breast cancer among females was 102 per 100,000 population (Table A), while the rate for all breast cancer cases among females was 120 per 100,000 (Table 2).

**Table B. Number and Age-Adjusted Rate of Cancer Cases for 1994 Diagnoses by Site Group and Sex, Updated to Include All Cases Reported by May 1998**

PRIMARY SITE	MALE		FEMALE		TOTAL	
	Number	Rate	Number	Rate	Number	Rate
Mouth & Pharynx	368	13.8	199	6.1	567	9.8
Stomach	276	9.9	151	3.9	427	6.6
Colon	1,201	43.8	1,204	31.7	2,405	37.0
Rectum & Rectosigmoid Junction	501	18.5	394	10.9	895	14.4
Pancreas	263	9.8	289	7.8	552	8.7
Other Gastrointestinal Tract	441	16.3	333	9.2	774	12.4
Trachea, Bronchus & Lung	1,915	71.6	1,284	39.5	3,199	53.8
Other Respiratory	325	12.3	103	3.1	428	7.4
Bone & Connective Tissue	147	5.4	116	3.7	263	4.5
Melanoma of Skin	333	12.0	277	8.7	610	10.1
Breast	41	1.5	3,662	113.2	3,703	61.0
Cervix Uteri	-	-	936	31.5	936	15.9
Corpus Uteri	-	-	653	20.8	653	11.1
Other Female Genital	-	-	713	21.2	713	11.4
Prostate	3,903	144.2	-	-	3,903	64.0
Other Male Genital	190	6.5	-	-	190	3.1
Urinary Bladder	790	28.3	261	7.1	1,051	16.3
Kidney & Other Urinary	414	15.4	250	7.7	664	11.1
Eye, Brain & Other Nervous System	219	8.1	208	6.7	427	7.4
Lymph Nodes	417	15.4	379	11.5	796	13.3
Leukemia	393	14.7	283	8.3	676	11.2
All Others	565	20.2	702	20.0	1,267	19.9
All Reportable Sites	12,702	467.6	12,397	372.8	25,099	410.2

Notes: Data in this table represent cases diagnosed in 1994 and reported to the Cancer Reporting System by May 1998, the date of compilation for **Wisconsin Cancer and Mortality, 1996**. This table is an updated version of Table 2 in **Cancer in Wisconsin, 1994** (23,711 total cases reported with a total age-adjusted rate of 393.3). Rates are per 100,000 residents, age-adjusted to the 1970 U.S. standard population.

**Wisconsin Cancer Incidence and Mortality** is a “point in time” publication that represents the number of reports received by a pre-determined “cut-off” date. Every effort is made to produce the report shortly after the required due date for each year’s cases. However, some cases are not reported until after the data are compiled. Various reasons for late reporting include care patterns (a patient may not have been cared for by a CRS reporting facility until some time after initial diagnosis), interstate data exchange (delays occur in the transferring of data between central registries due to data processing) and facility lapses in casefinding and timeliness of reporting. Reports for cases diagnosed in a given year continue to accumulate for two to three years after the due date for that diagnosis year.

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(POH 5244)